SAMSUNG

WASHING MACHINE
DRUM TYPE

Basic Model : WF316LAW

Model Name : <FRONTIER 1 PROJECT>
WF326***
WF306***
WF316***
WF317***
<MARS 1 PROJECT>
WF206***

Model Code : WF317AAW/XAA (FRONTIER1)
WF206BNW/XAA (MARS1)

SERVICE Manual

WASHING MACHINE

WF316LAS	WF316BAC
WF306LAW	**WF206LNW**

THE FEATURE OF PRODUCT

1. SilverCare
2. SuperSize Capacity
3. Direct Drive Motor
4. Child Lock
5. My Cycle

Refer to the service manual in the GSPN (see the rear cover) for the more information.

CONTENTS

1. PRECAUTIONS
- 1-1. SAFETY PRECAUTIONS....1-1
- 1-2. PRECAUTIONS UPON INSTALLATION....1-2

2. PRODUCT SPECIFICATIONS
- 2-1. THE FEATURE OF PRODUCT....2-1
- 2-2. SPECIFICATIONS OF PRODUCT....2-2
- 2-3. THE COMPARATIVE SPECIFICATIONS OF PRODUCT....2-3
- 2-4. OPTION SPECIFICATIONS....2-4

3. OPERATING INSTRUCTIONS
- 3-1. OVERVIEW OF THE CONTROL PANEL....3-1
- 3-2. PROGRAMME CHART....3-3
- 3-3. MAIN FUNCTIONS....3-5
- 3-4 TECHNICAL POINT....3-7

4. ALIGNMENT AND ADJUSTMENTS
- 4-1. GENERAL ERROR FUNCTION....4-1
- 4-2. TEST MODE....4-2

5. ASSEMBLY AND DISASSEMBLY
- 5-1. TOOLS FOR DISASSEMBLY AND ASSEMBLY....5-1
- 5-2. DISASSEMBLY....5-2

6. TROUBLE SHOOTING
- 6-1. TROUBLE DIAGNOSIS....6-1
- 6-2. PROBLEM CHECKING AND METHOD OF PCB....6-6

7. EXPLODED VIEWS AND PARTS LIST
- 7-1. MATERIAL CODE STANDARDS....7-1
- 7-2. THE CONTROL PARTS (WF317AAW/XAA)....7-2
- 7-3. THE DOOR PARTS (WF317AAW/XAA)....7-4
- 7-4. THE TUB PARTS (WF317AAW/XAA)....7-6
- 7-5. THE FRAME PARTS (WF317AAW/XAA)....7-8
- 7-6. PARTS LIST (SA/SC others) (WF317AAW/XAA)....7-10
- 7-7. THE CONTROL PARTS (WF206BNW/XAA)....7-12
- 7-8. THE DOOR PARTS (WF206BNW/XAA)....7-14
- 7-9. THE TUB PARTS (WF206BNW/XAA)....7-16
- 7-10. THE FRAME PARTS (WF206BNW/XAA)....7-18
- 7-11. PARTS LIST (SA/SC others) (WF206BNW/XAA)....7-20

CONTENTS

8. BLOCK DIAGRAM 8-1

9. WIRING DIAGRAM 9-1
- 9-1. WIRING DIAGRAM 9-1
- 9-2. REFERENCE INFORMATION 9-2

10. PCB DIAGRAM 10-1
- 10-1. PCB LAYOUT 10-1
- 10-2. CONNECTOR & RELAY TERMINALS DESCRIPTION (MAIN PBA) 10-2
- 10-3. CONNECTOR & RELAY TERMINALS DESCRIPTION (SUB PBA) 10-3
- 10-4. SUB PCB LAYOUT (THE PRINCIPLE PART) 10-4
- 10-5. MEMS PBA CONNECTOR TERMINAL DESCRIPTION & LAYOUT (THE PRINCIPLE PART) 10-5
- 10-6. AG PBA CONNECTOR TERMINAL DESCRIPTION & LAYOUT (THE PRINCIPLE PART) 10-6

11. SCHEMATIC-DIAGRAMS 11-1
- 11-1. MAIN PCB 11-1
- 11-2. SUB PCB 11-2
- 11-3. MEMS PCB 11-3
- 11-4. AG PCB 11-4

12. REFERENCE INFORMATION
- 12-1. OVERALL SYSTEM 12-1
- 12-2. POWER SUPPLY PART 12-2
- 12-3. DRIVING PART 12-3
- 12-4. SENSING PART 12-4
- 12-5. COMMUNICATION PART 12-5

13. REFERENCE INFORMATION
- 13-1. MODEL NAME 13-1
- 13-2. TERMINOLOGY 13-2
- 13-3. FABRIC CARE CHART 13-3
- 13-4. ELECTRICAL WARNINGS 13-4
- 13-5. Q & A 13-5

1. PRECAUTIONS

1-1. SAFETY PRECAUTIONS

1. Do not allow the customer to repair the product.
☞ It may cause personal injury or product damage when the unit is serviced by unqualified personnel.

2. Disconnect power to the appliance before servicing.
☞ Be aware of the possibilities of an electric shock.

3. Do not use multi-plug.
☞ Power outlet may be overloaded causing the socket to overheat.

4. Check for any damage on power plug or power outlet.
☞ Replace it immediately if it has problem. (It may cause an electric shock or fire)

5. Make sure to earth the product.
☞ May cause electric shock.

6. Do not clean the product with water.
☞ May cause electric shock / fire or shorten product life.

7. The wiring harness should be free from moisture and connected properly during serving.
☞ It should be proof against any external force.

8. Remove any dust or dirt in the product, wiring section and connections during servicing.
☞ Protect against possibilities of fire due to tracking etc.

9. Check for any water trace on electrical parts, harness, etc.
☞ Replace the parts and /or wipe dry the water.

10.Check the assembled status of the parts after servicing.
☞ Check if the product is assembled in the same status as before servicing.

11.Be sure not to pull on the power cord but to unplug it by holding the plug.
☞ Beware of possibility of electric shock or fire when the power cord is damaged.

12.Unplug the power plug from the outlet when the washing machine is not used.
☞ Beware of possibility of electric shock or fire while lightening.

13.Do not use or put flammable materials (including gasoline, alcohol, thinner etc) around the washing machine.
☞ Flammable materials may spark an explosion or fire.

14.Do not put a water containing bowl or wet laundry on the washing machine.
☞ It may cause an electric shock or fire, or shorten the product life when its water penetrates into the washing machine.

15.Do not install the washing machine in a place where it is exposed to snow or rain etc.
☞ It may cause an electric shock or fire and shorten the product life.

16.Do not press control buttons with pointed objects such as pins, needles, etc.
☞ It may cause an electric shock or other problems.

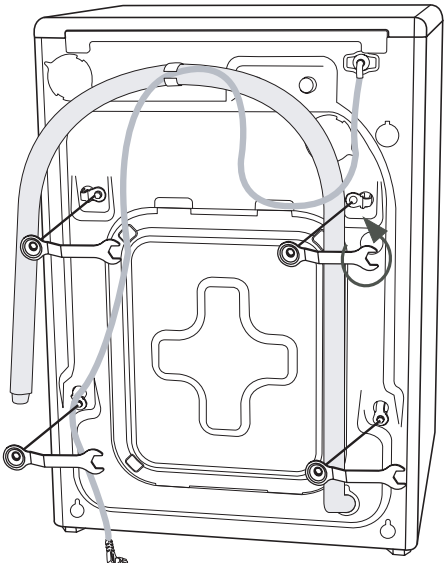
17.Check the washing machine is leveled horizontally on the floor and is installed properly.
☞ Vibration may shorten the product life.

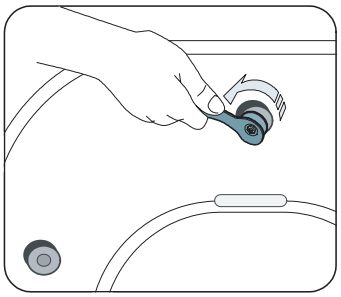
18.Make sure to use connectors when connecting wires.
☞ If wires are connected without connectors, it may cause a tracking fire.

19.When the washing machine is to be laid down for servicing, put a pad on the floor and lay the product on its side slowly.
☞ If the wash machine is laid on its front, internal components may be damaged by the tub.

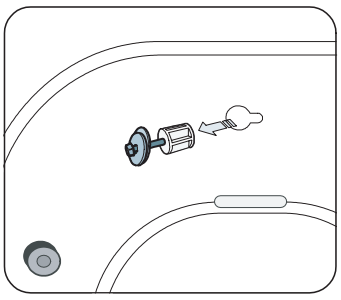
1-2. PRECAUTIONS UPON INSTALLATION

■ How to Remove Shipping Bolts

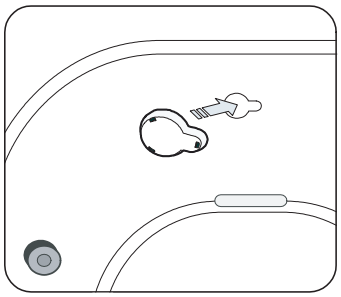




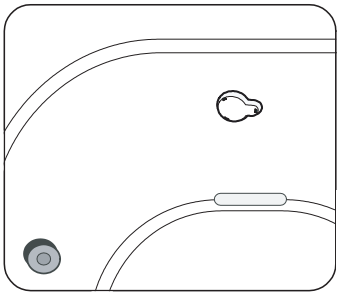
1. Remove the screws by using the supplied spanner.



2. Remove the shipping bolts from the back of the unit.

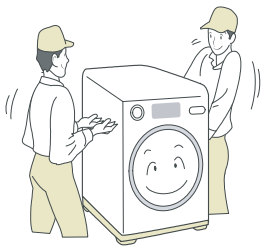


3. Fill the holes with the supplied plastic caps.

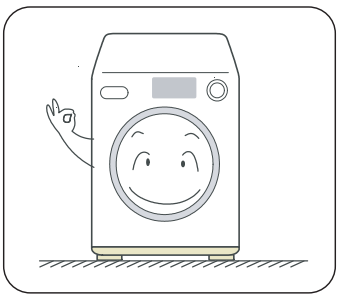


4. Keep the shipping bolts and screws for future use.

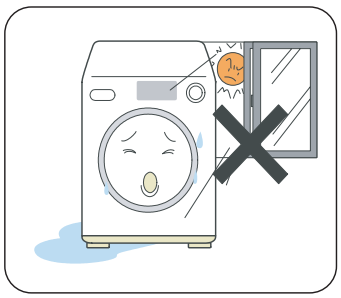
■ Precautions before Installation



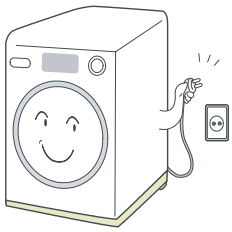
The unit is quite heavy.
So, make sure to have 2 or more personnel move it.



Make sure that the unit stands on a firm and leveled floor.

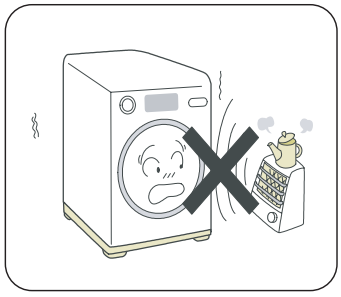


eep it away from direct sunlight or high humidity, and install it in a place with good ventilation.



Install the unit at a place with a wall outlet easily accessible.

Keep the unit away from places in which it is freezing, especially in winter.

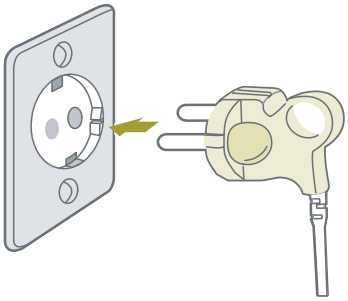


Keep the unit away from heat appliances such as a heater.

1-2. PRECAUTIONS UPON INSTALLATION

■ Grounding

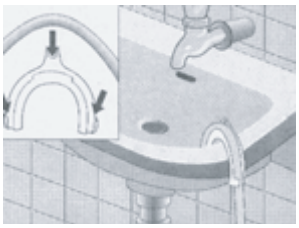
► Make sure to ground the unit to prevent electric leakage or shock.



With a grounded receptacle

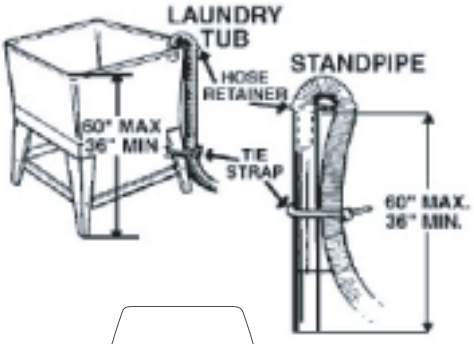
► It does not need an additional grounding.

■Water Drainage



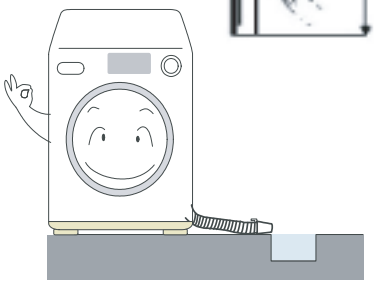
► Hook the drain hose over the Wash Basin or Laundry Tub or plug the end of the drai hose into the Standpipe

- Hook the drain hose over the Wash Basin or Laundry Tub or plug the end of the drain hose into the Standpipe
- The outlet end of the drain hose must be at least 60-90 cm above the base of the machine.



► Seal the drain pipe connections

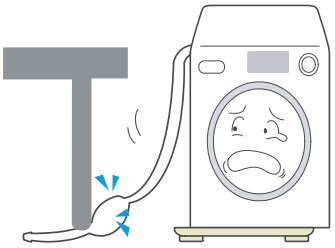
- If not, it may cause water leakage.



► Prevent water from siphoning away

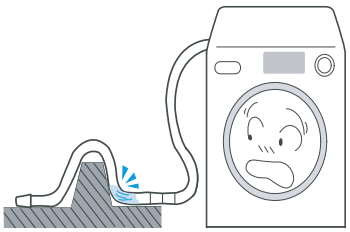
- If the end of the drain hose is put in water, it could siphon away water during washing.

  So, make sure that the end of the drain hose is not put in water.



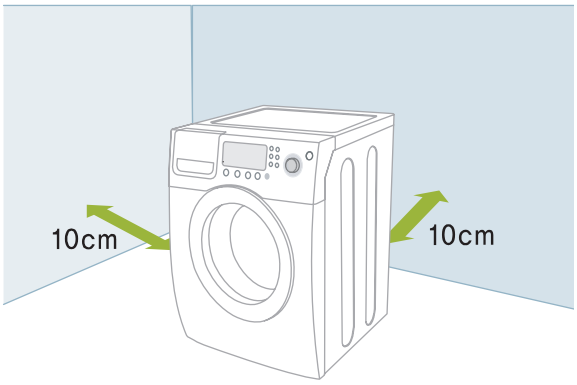
Note: Caution must always be exercised to avoid collapsing or damaging the drain hose.

For best performance the drain hose should not be restricted in any way, through elbows, couplings or excessive lengths.



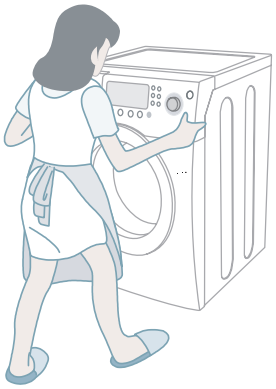
1-2. PRECAUTIONS UPON INSTALLATION

■ How to Level the Unit



1.Select an installation place.

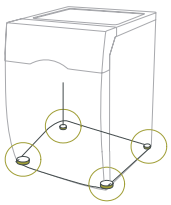
► Install the unit with 10cm or more clearance from its surrounding walls.

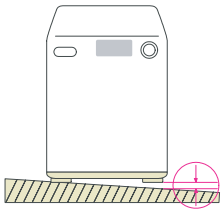


2.Check if the unit is leveled.

► If the unit wabbles, adjust the leveling legs.

3.Adjust the leveling legs.





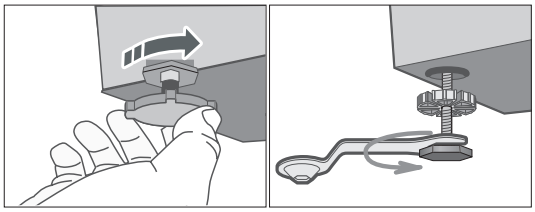
► The 4 leveling legs should touch the floor all together.

When the unit is not leveled

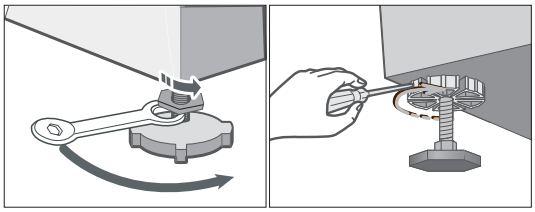
► Lift up the unit a little bit and adjust the shortest.

► Turn the leveling bolt counter clockwise as shown in the picture above (The leveling leg gets longer.)

1-2. PRECAUTIONS UPON INSTALLATION

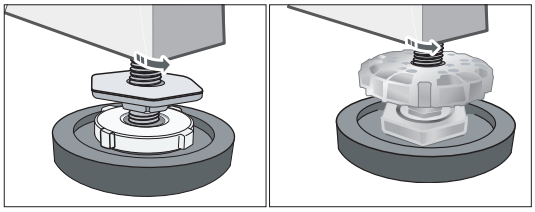


► Slide your Washer into position.



► Level your Washer by turning the leveling legs in or out as necessary by hand or wrench included with your Washer.
When your Washer is level, tighten the nuts using the wrench or (-)driver.

NOTE: Your Washer must be leveled on all four sides. A carpenter's level should be used on all four corners of your Washer. It's a good idea after the first dozen washes to recheck your Washer's levelness.



► If you install your washer on softfloor, you should place the rubber cup under adjustable leg. Before put rubber cup, please remove film for double-side tape attached on rubber cup.

NOTE: If washer is installed on riser, you should put rubber cup under leg for riser.

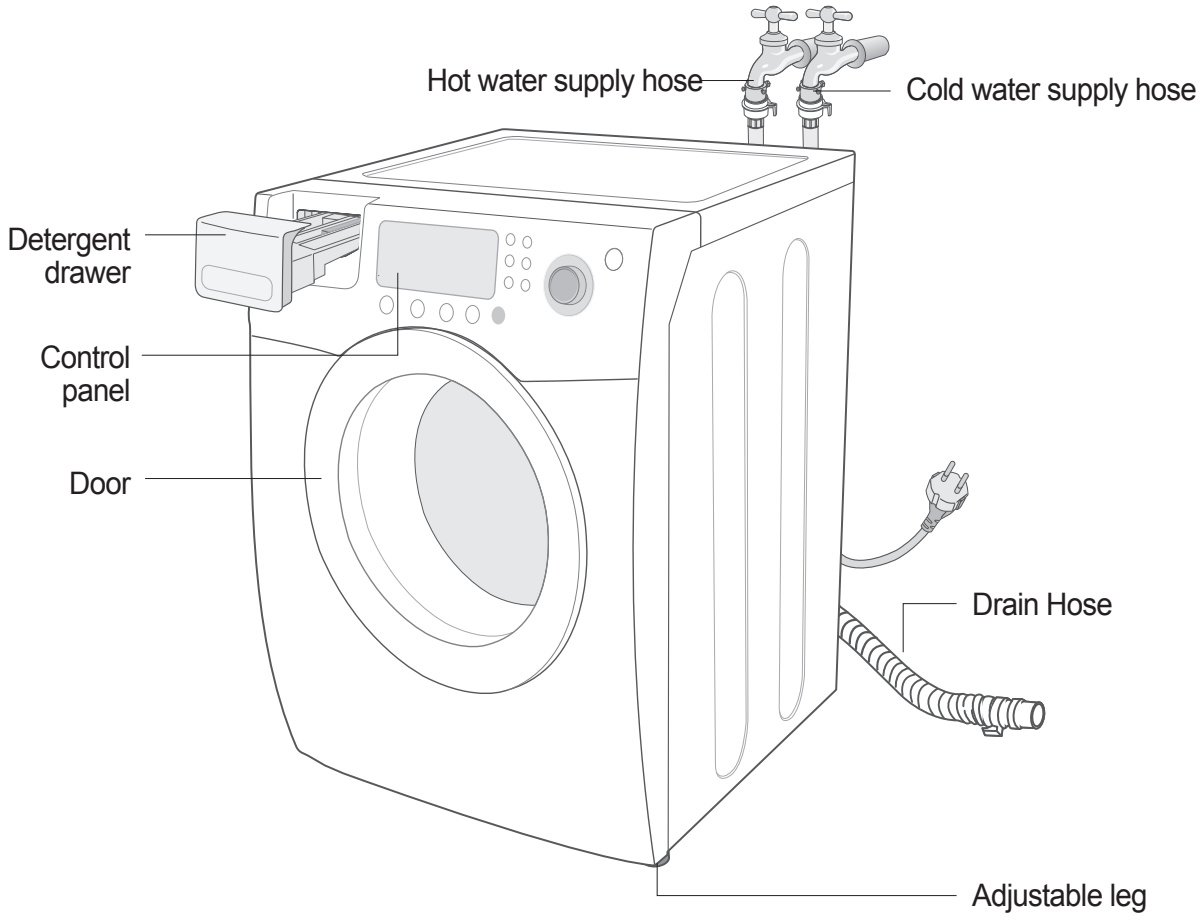
Memo

2. PRODUCT SPECIFICATIONS

2-1. SPECIFICATIONS OF PRODUCT

TYPE	FRONT LOADING WASHER			
DIMENSION	Div	Inches (cm)	Div	Inches (cm)
	A. Height-Overall	38 (96.5)	C. Depth With Door Open 90°	49 (124.5)
	B. Width	27 (68.6)	D. Depth	30.25 (77.0)
WATER PRESSURE			50 kPa ~ 800 kPa	
WEIGHT			89.9 kg	
CAPACITY			3.29 Cu.ft	
POWER CONSUMPTION	WASHING		120V	226W
	WASHING AND HEATING		120V	997W
	SPIN		120V	379W
	DRAIN		120V	41W
SPIN REVOLUTION	WF326***		1200rpm	
	WF316*** / WF317***		1100rpm	
	WF306***		1000rpm	
	WF206***		1000rpm	

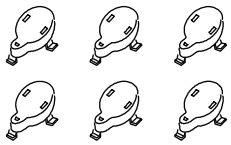
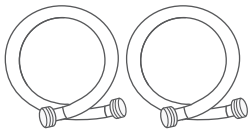
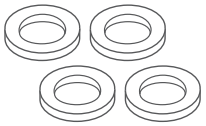
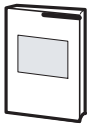
2-2. OVERVIEW OF THE WASHING MACHINE



2-3. THE COMPARATIVE SPECIFICATIONS OF PRODUCT

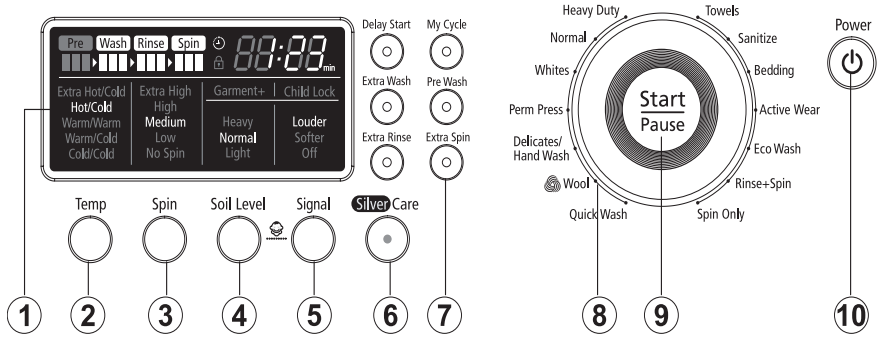
Item	Samsung (WF316LAW)	Whirlpool (GHW9250M)	LG (WM2432HW)	Bosch (WFMC6400)
Capacity (Cu.ft)	3.29 (DOE)	3.21 (DOE)	3.22 (3.72)	2.93 (DOE)
Volume of Spinner (ℓ)	93.4	90	91	83
Motor	Direct Drive	3-Phase	Direct Drive	3-Phase
User Interface	LED	LED	LED	LCD (red)
Cycle Time	57	52	59	66
Wash Performance	1.01	1.00	0.99	1.02
Water Consumption/Cycle	48 Liter	56 Liter	49 Liter	61 Liter
Energy Consumption (W/O Heater Wh/Cycle)	128	105	114	189
RPM	1,100	1,100	1,200	1,200
Noise	57 dB	59 dB	66 dB	62 dB

2-4. OPTION SPECIFICATIONS

Item	Item Name	Code No.	Remark
	BOLT-SPANER	DC60-40146A	
	CAP-FIXER	DC61-10688A	
	HOSE-WATER(H)	DC62-00075A	
	HOSE-WATER(C)	DC62-00075B	
	SEAL-WATER	DC62-40178A	
	MANUAL-BOOK	DC68-02291A	

3. OPERRATING INSTALLATION

3-1. OVERVIEW OF THE CONTROL PANEL



1. Digital graphic display
   Displays the remaining wash time, all wash information, and error messages.

2. Temperature selection button
   Press the button repeatedly to cycle through the different water temperature options.
   Extra Hot/Cold - Heavily soiled, colorfast items. Only available with the Sanitize cycle.
   Hot/Cold - Whites and heavily soiled, colorfast items.
   Warm/Warm - Colorfast items. When warm rinse is selected, only the final rinse will be warm. The other rinses will be cold to conserve energy.
   Warm/Cold - Moderately soiled, colorfast items; most wrinkle-free items.
   Cold/Cold - Brightly colored, very lightly soiled items; washable woolens.

3. Spin selection button
   Press the button repeatedly to cycle through the different spin speed options.
   Extra High - Removes more water from loads during spin.
   NOTE: To minimize wrinkling of wrinkle-free and no-iron fabrics, DO NOT use the Extra High spin option for these loads, nor overload your Washer.
   High - Use for underwear, t-shirts, jeans and sturdy cottons.
   Medium - Use for jeans, wrinkle-free or wash-and-wear items and synthetics.
   Low - Use for delicate items needing a slow spin speed because of fabric and construction.
   No Spin - Drains your Washer without spinning. Use for extremely delicate items that cannot tolerate any spin.

4. Soil Level selection button
   Press the button to select the Soil Level/washing time.
   Heavy - For heavily soiled loads.
   Normal - For moderately soiled loads. This setting will be appropriate for most loads.
   Light - For lightly soiled loads.

5. Signal selection button
   Press the button to increase or decrease the end of cycle signal volume or turn off the signal.

6. SilverCare™ button
   Silver ions are added during the wash and rinse cycles to maximize the sanitizing and antibiotic
   effects, Harnesses pure silver's sanitizing power and the state-of-the-art technological competency of SAMSUNG.
   Two plates of 99.9% pure silver are converted into silver ions through electrolysis and penetrate into the laundry blended with water.
   Even in cold water, silver particles sanitize and kill 99.9% of odor-causing bacteria.
   Washing garments with SilverCareTM can save about 92% of energy compared to hot water sanitization. Also, SilverCareTM Technology significantly reduces damage to delicate clothes compared to sanitizing in hot water.

3-1. OVERVIEW OF THE CONTROL PANEL

7. Select Cycle Option

Delay Start - Any cycle can be delayed for up to 12, 19 or 24hours (select models) in one-hour increments. Displayed hour indicates the time at which the wash will be finished.

Extra Wash - Add additional time to the wash for better stain removal.

Extra Rinse - Add an additional rinse at the end of the cycle to more thoroughly remove laundry additives and perfumes.

Extra Spin - Add additional time to remove more water from loads

My Cycle - Choose your favorite cycle including temperature, spin, soil level, option, etc.

Pre Wash - Add detergent to the Pre Wash selection of the detergent compartment. Washer fills with cold water and detergent, tumbles, then drains and advances to the selected wash cycle. Some cycles cannot be selected with this option.*

* You can`t select PreWash option in Delicate/Hand Wash, Wool, Quick Wash and Active Wear cycles.

8. Cycle Selector

Select the appropriate cycle for the type of load.

This will determine the tumble pattern and spin speed for the cycle.

NOTE: To minimize wrinkling of loads, select the Perm Press cycle.

Heavy Duty - For sturdy, colorfast fabrics and heavily soiled garments.

Normal - For most fabrics including cottons, linens, and normally soiled garments.

Whites - For white fabrics with or without bleach.

Perm Press - For wash-and-wear, synthetic fabrics, and lightly to normally soiled garments.

Delicates/Hand Wash - For sheer fabrics, bras, lingerie silk, and other handwash-only fabrics. For best results, use liquid detergent.

Wool - For machine-washable wool. Loads should be under 8 pounds.

The wool wash cycle of this machine has been approved by Woolmark for the washing of machine washable Woolmark products provided that the products are washed according to the instructions on the garment label and those issued by the manufacturer of this washing machine, M0509.

Quick Wash - For lightly soiled or wrinkled garments needed quickly.

Towels - For bath towels and washcloths. Do not load too many towels because they absorb lots of water.

Sanitize - For heavily soiled, colorfast garments. This cycle heats the water to 150°F to eliminate bacteria.

NOTE: If Pause is selected during the heating portion of the Sanitize Cycle, your Washer door will remain locked for your safety.

Bedding - For bulky items such as blankets and sheets.

Active Wear - For washable sportswear.

Eco Wash - For geographic areas where energy and water conservation is needed.

Rinse + Spin - Use for loads that need rinsing only or to add rinse-added fabric softener to a load.

Spin Only - Provides a spin to remove more water from the load.

9. Start/Pause selection button

Press to pause and restart programs.

10. Power button

Press once to turn your Washer on, press again to turn your Washer off. If your Washer is left on for more than 10 minutes without any buttons being touched, the power automatically turns off.

NOTE : Cycles and options vary by model. See next pages.

326LAS

	Functions													Options							Time
	Temp					Spin					Soil Level			Delay Start	Extra Wash	Extra Rinse	My Cycle	Pre Wash	Extra Spin	Silver Care™	
	EH/C	H/C	W/W	W/C	C/C	EH	H	M	L	NS	H	N	L								
Heavy Duty		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	92
Normal		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	53
Whites		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	62
Perm Press			√	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	√	47
Delicates/ Hand Wash			√	√	√				√	√	√	√	√	√		√	√			√	41
Wool					√				√	√		√		√			√				57
Quick Wash		√	√	√	√	√	√	√	√	√	√	√	√	√		√	√			√	35
Towels		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	66
Sanitize	√					√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	112
Bedding			√	√	√			√	√	√	√	√	√	√	√	√	√	√	√	√	71
Active Wear			√	√	√		√	√	√	√	√	√	√	√		√	√			√	51
Eco Wash		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	47
Rinse + Spin					√	√	√	√	√	√				√		√	√		√	√	20
Spin Only						√	√	√	√	√				√			√		√		11

306LAW

	Functions											Options				Time
	Temp				Spin				Soil Level			Delay Start	Extra Wash	Extra Rinse	Silver Care™	
	H/C	W/W	W/C	C/C	H	M	L	NS	H	N	L					
Heavy Duty	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	67
Normal	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	53
Whites	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	62
Perm Press		√	√	√	√	√	√	√	√	√	√	√	√	√	√	47
Delicates/ Hand Wash		√	√	√			√	√	√	√	√	√		√	√	41
Wool				√			√	√		√		√				57
Quick Wash	√	√	√	√	√	√	√	√	√	√	√	√		√	√	35
Towels	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	66
Rinse + Spin				√	√	√	√	√				√		√	√	20
Spin Only					√	√	√	√				√				11

3-2. PROGRAMME CHART

316LAW, 316LAS, 316BAW, 316BAC

	Functions													Options						Time
	Temp					Spin					Soil Level			Delay Start	Extra Wash	Extra Rinse	My Cycle	Pre Wash	Silver Care™	
	EH/C	H/C	W/W	W/C	C/C	EH	H	M	L	NS	H	N	L							
Heavy Duty		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	92
Normal		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	53
Whites		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	62
Perm Press			√	√	√		√	√	√	√	√	√	√	√	√	√	√	√	√	47
Delica-tes/ Hand Wash			√	√	√				√	√	√	√	√	√		√	√		√	41
Wool					√				√	√		√		√			√			57
Quick Wash		√	√	√	√	√	√	√	√	√	√	√	√	√		√	√		√	35
Towels		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	66
Sanitize	√					√	√	√	√	√	√	√	√	√	√	√	√	√	√	112
Bedding			√	√	√			√	√	√	√	√	√	√	√	√	√	√	√	71
Rinse + Spin					√	√	√	√	√	√				√		√	√		√	20
Spin Only						√	√	√	√	√				√			√			11

306BHW

	Functions												Options				Time
	Temp					Spin				Soil Level			Delay Start	Extra Wash	Extra Rinse	Silver Care™	
	EH/C	H/C	W/W	W/C	C/C	H	M	L	NS	H	N	L					
Heavy Duty		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	67
Normal		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	53
Whites		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	62
Perm Press			√	√	√	√	√	√	√	√	√	√	√	√	√	√	47
Delicates/ Hand Wash			√	√	√			√	√	√	√	√	√		√	√	41
Wool					√			√	√		√		√				57
Quick Wash		√	√	√	√	√	√	√	√	√	√	√	√		√	√	35
Towels		√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	66
Sanitize	√					√	√	√	√	√	√	√	√	√	√	√	112
Bedding			√	√	√		√	√	√	√	√	√	√	√	√	√	71
Rinse + Spin					√	√	√	√	√				√		√	√	20
Spin Only						√	√	√	√				√				11

3-2. PROGRAMME CHART

206LNW,206BNW

	Functions											Options			Time
	Temp				Spin				Soil Level			Delay Start	Extra Wash	Extra Rinse	
	H/C	W/W	W/C	C/C	H	M	L	NS	H	N	L				
Heavy Duty	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	67
Normal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	53
Whites	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	62
Perm Press		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	47
Towels	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	66
Rinse + Spin				✓	✓	✓	✓	✓				✓		✓	20
Spin Only					✓	✓	✓	✓				✓			11

3-3. MAIN FUNCTION

CHILD LOCK

A function that prevents children from playing with your Washer.

ACTIVATING/DEACTIVATING

If you want to activate/deactivate the Child Lock function, press the Soil Level and Signal buttons at the same time for 3 seconds.

How It Works:

1. Child Lock can be activated while your Washer is running.
2. Once you activate Child Lock, all controls (except for the Power button) will be locked until you deactivate Child Lock.
3. The Child Lock button will be lit while it is in effect.

Note:

When buttons, other than the Power button, do not respond, please check if the Child Lock button is on.

GARMENT +

You can add or take out laundry items even after the wash has started, as long as the Garment+ light is on. Pushing the Start/Pause button unlocks the door, unless the water is too hot or if there is too much water in your Washer. If you are able to unlock the door and wish to continue the wash cycle, close the door and press the Start/Pause button.

MY CYCLE

Allows you to activate your custom wash (temperature, spin, soil level, etc.) with one-button convenience.

By pushing the My Cycle button, you activate the settings used during the last My Cycle mode. The My Cycle light will indicate activation.

You can select all options as follows in My Cycle mode.

1. Select cycle using Cycle Selector dial.
2. After cycle selection, set each option.
   Note: At this time, the option will follow as per each cycle's default option selection.
3. Then, you can start My Cycle by pushing the Start/Pause button in My Cycle mode.
   The cycle and options you select will be displayed next time you choose My Cycle.
   Note: You can change My Cycle setting by repeating same process above.
   The last used setting will be displayed at next time you choose My Cycle.

3-3. MAIN FUNCTION

FOR SilverCare™ WASHING

An increased consumer demand for energy-saving products prompted Samsung to develop a system to use silver, widely known for its antibacterial properties, in your washing machine. Pure silver atoms have an electron stripped away by electrolysis during the wash and rinse cycles, which releases up to 400 billion silver ions that then penetrate deep into the fabric to sanitize clothing (according to U.S. EPA Test Guideline DIS/TSS-13) without the need for hot water or bleach.

Here's how it works: A grapefruit-sized device alongside the tub uses two pure silver plates the size of large chewing gum sticks. The resulting positively charged silver atoms - Silver ions (Ag+) -- are sprayed into the tub during the wash cycle. The ionic solution penetrates laundry and coats the individual fibers with the ions. According to NSF tests, this process removed or killed greater than 99.9% of tested bacteria (specified test bacteria in U.S. EPA Test Guideline DIS/TSS-13)

Samsung's SilverCare™ Technology provides a 92% energy savings over hot water sanitization. Extra delicate blouses, shirts, or even lingerie that can't be washed in hot water can now be sanitized effectively without the adverse effects of hot water washing that is normally a concern with those types of articles. The silver plates carry a warranty of ten years, and can easily be replaced by a Service Technician if so needed.

1. Open the door, put in the clothes and close the door again.
2. Press the Power button.
3. Select a Cycle by turning the Cycle Selection dial.
4. Press SilverCare™ button.
5. Add detergent in the dispenser tray for main washing, and add fabric softener up to the marked line.
   : For Pre Wash, put a supplementary detergent in the dispenser.
   SilverCare™ : If it is used together with fabric softener, its effect may be decreased.
6. Press Start/Pause button.
   : Automatically selects optimal washing conditions by sensing the laundry's weight.

Note :

FOR HOME USE ONLY– COMMERCIAL USERS SHOULD NOTIFY THEIR LOCAL WASTE TREATMENT AUTHORITIES BEFORE USE

You can find # of times you used SilverCare™ option by pushing signal and SilverCare™ button.

LU3 : less than 1000 times
LU2 : between 1000 to 2000 times
LU1 : between 2000 to 2999 times
LU0 : over 2999 times

You should replace the SilverCare™ kit when it displays "LU0". Contact 1-800-SAMSUNG.

Note :

For some model which has no heater if you choose SilverCare™, Temp will be fixed to Cold/Cold.
If you change Temp selection, the SilverCare™ option will be canceled.
You can't choose SilverCareTM option with Wool cycle.

3-4. TECHNICAL POINT

1) Motor on/off time at each course

unit:sec

Course	Washing				Motor r.p.m
	Cw	Off	Ccw	Off	
Heavy Duty	14	6	14	6	45
Normal	14	6	14	6	45
Whites	12	8	12	8	45
Perm Press	5	5	5	5	45
Delicate/Hand wash	2	13	2	13	45
Wool	1	59	1	59	40
Quick Wash	12	8	12	8	45
Towels	10	10	10	10	45
Sanitary	10	10	10	10	45
Bedding	12	8	12	8	45
Active Wear	10	10	10	10	45
Eco Wash	12	8	12	8	45
Rinse + Spin	10	10	10	10	45
Spin Only	–	–	–	–	–

2) Final dehydrating r.p.m at each course

unit:rpm

Model / Course	WF326L		WF316L		WF306L		WF206L	
	Default	MAX RPM	Default	MAX RPM	Default	MAX RPM	Default	MAX RPM
Heavy Duty	1200	1200	1100	1100	1000	1000	1000	1000
Normal	1200	1000	1000	1100	1000	1000	1000	1000
Whites	1200	1200	1100	1100	1000	1000	1000	1000
Perm Press	800	1000	600	1000	600	600	600	600
Delicate/Hand wash	800	400	400	400	400	400	–	–
Wool	400	600	600	600	600	600	–	–
Quick Wash	1200	1200	1000	1100	1000	1000	–	–
Towels	400	1200	1000	1100	1000	1000	1000	1000
Sanitary	1200	1200	1100	1100	–	–	–	–
Bedding	600	800	600	800	–	–	–	–
Active Wear	600	1000	–	–	–	–	–	–
Eco Wash	1000	1200	–	–	–	–	–	–
Rinse + Spin	1000	1200	1000	1100	1000	1000	1000	1000
Spin Only	1000	1200	1000	1100	1000	1000	1000	1000

3) The water supply control at each process cycle

Process cycle \ Model	WF316, WF306
Pre Washing	Cold water 5L/min
Washing	Cold water 10L/min + (Hot water 10L/min)
Rinse	Cold water 10L/min
Final rinse	Cold water 10L/min + Cold water 5L/min

4) The water level data at each course

unit:Khz

Course \ Model		Water Level		
		Default water level (kHz)	**Supplementary water START (kHz)**	**Supplementary water End (kHz)**
Heavy Duty	Washing	24.5	24.85	24.6
	Rinse	24.6	24.95	24.7
Normal	Washing	24.4	24.75	24.5
	Rinse	24.6	24.6	24.95
Whites	Washing	24.4	24.75	24.5
	Rinse	24.3	24.65	24.4
Perm Press	Washing	24.3	24.65	24.4
	Rinse	24.2	24.55	24.3
Delicate/Hand wash	Washing	23.7	24.05	23.8
	Rinse	23.6	23.95	23.7
Wool	Washing	23.7	-	-
	Rinse	23.2	-	-
Quick Wash	Washing	24.4	24.75	24.5
	Rinse	24.3	24.65	24.4
Towels	Washing	24.3	24.65	24.4
	Rinse	24.2	24.55	23.3
Sanitary	Washing	24.7	25.05	24.8
	Rinse	24.6	24.95	24.7
Bedding	Washing	24.2	24.55	24.3
	Rinse	24.1	24.45	24.8
Active Wear	Washing	24.4	24.75	24.7
	Rinse	24.3	24.65	24.4
Bedding	Washing	24.5	24.85	24.6
	Rinse	24.4	24.75	24.5
Rinse + Spin	Washing	-	-	-
	Rinse	24.3	24.65	24.4

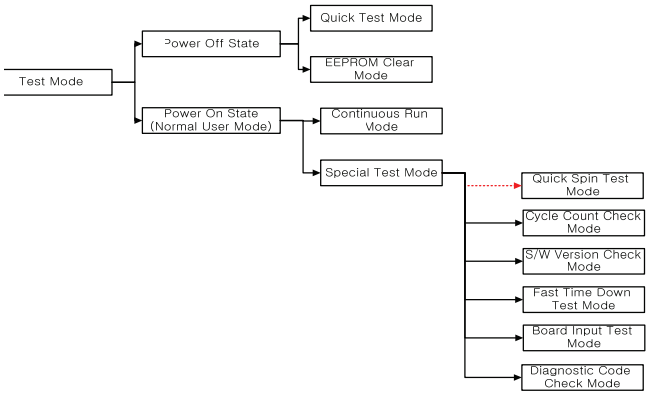
Memo

4. ALIGNMENT AND ADJUSTMENTS

4-1. GENERAL ERROR FUNCTION

NO	LED Display	Diagnostic Code	Description	Corrective Action
1	nd	1	The water level fails to drop below the Reset Water Level within 15 minutes.	Go to " Will Not Drain" Troubleshooting Section.
2	LO	2	Door fails to unlock after 3 attempts.	Go to " Will Not Unlock" Troubleshooting Section.
3	nF	3	When the filling continues for more than 16 minutes or there is no change of water level for 3 minutes	Go to " No Water Fill" Troubleshooting Section.
4	FL	4	Door fails to lock after 3 attempts.	Go to " Will Not Lock" Troubleshooting Section.
5	LE	8	Water Level Sensor Trouble. (When the input signal from the water level sensor is out of range, the unit will send out beeping sounds and halts the cycle.)	Go to "No Water Fill" Troubleshooting Section.
6	OE	E	A fault is detected in the water level sensor. Data (frequency) shows the water level is at or above the overflow water level. (When this condition is detected, the machine will automatically starts draining water until the water level falls below the overflow water level)	First check to see that all of water valves are not stuck. If water valves are OK, check water level sensor.
7	dc	10	Unbalance or cabinet bump is detected during final spin, which prevents the drum from spinning over 400 rpm. (Never exceeds 400 RPM due to unbalanced load)	Go to "Wet Clothes" Troubleshooting Section.
8	-	11	EEPROM Fault. (Program settings are being reset.)	Go to "EEPROM Clear Mode" If display shows "FAiL",Replace Machine Control Board.
9	E2	15	Jammed Key.(When key input signals are coming out for more than 30 seconds, it is regarded as a jam.)	Check all of keys. If A key is sensed to be pressed, all keys will do not respond.
10	dL	18	Door is detected as open when the motor is operating.	Check for loose wire connections. Go to "Quick Test Mode" and then do Door lock/Unlock Test and Motor Test.
11	dS	22	Door is detected as open while it is trying to lock the door.	Go to "Quick Test Mode" and then do Door Lock/Unlock Test
12	bE	25	Motor hall sensor signals come out without motor operation.	Replace Machine Control Board.
13	tE	29	Abnormal high/low temperature or resistance (Thermal sensor or PBA) resistance.	Go to " Board Input Test" and check Water Temperature. Check loose or pinched wires. Replace PCB or thermistor.
14	E3	2E	MICOM is attempting to drive the motor but is not getting any response signals from the hall sensor. Visual check shows motor is not running. (Locked, Defective Hall Sensor or Overload)	Evaluate wire harness for loose or unhooked connections. Go to " Quick Test Mode" and test Motor.
15	Sr	34	System Relay (Main Relay) Failure. (PCB does not notice the relay operation when there should be.)	Replace PCB.
16	Hr	36	Heater Relay Failure (No Heater Relay Check Signal)	Replace PCB
17	3E	3E	Over-current is detected. Motor won't turn. (IPM detects over-current.)	Evaluate wire harness for loose or unhooked connections. Go to " Quick Test Mode" to test Motor.
18	2E	91	Voltage for motor control bus is over specified limit.	Replace PCB
19	2E	92	Voltage for motor control bus is under specified limit.	Replace PCB
20	8E	8E	MEMS Sensor Failure. (No MEMS Sensor Check Signal)	Check MEMS PCB ,Main PCB & Wire-harness
21	7E	7E	Silver Care Kit (Silver Care PCB) Failure.	Check Silver Care PCB ,Main PCB & Wire-harness
22	PF	-	It occurs when there is power failure during the washing.("PF" is not an error. It is to inform the user of power failure.)	-
23	SUdS	-	Suds is detected during the washing session. ("SUdS" is not an error. If the washer is in suds period, "SUdS" will light up instead of remaining time.)	Guide a user to reduce amount of detergent usage.

4-2. TEST MODE

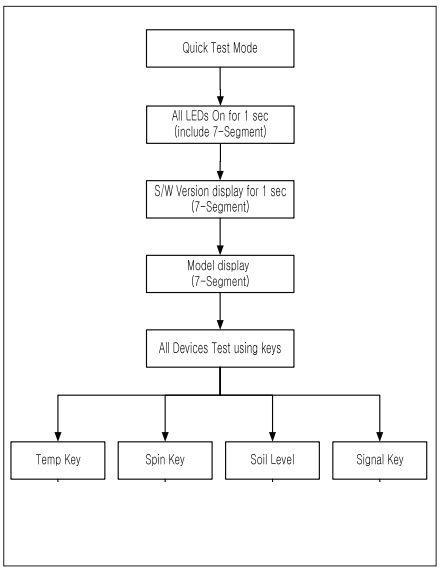


Test Mode:
Each Test Mode for the Frontier Washer is as follows in the coming pages. The test modes indicated by the red arrows are the modes unable to get an access once the washing cycle has started due to safety reasons.

4-2-1. Quick Test Mode

Definition of Quick Test Mode:
- Check operation of all LED's (Verify faulty LED).
- Check model and software version.
- Check different operating modes (e.g. water valve, motor, door, drain pump, etc.).

How to Enter:
- Plug in and turn on the unit.
- Press Spin Key, Soil Level Key and Power Key at the same time.
  (Same for all Frontier models.)



Quick Test Mode:

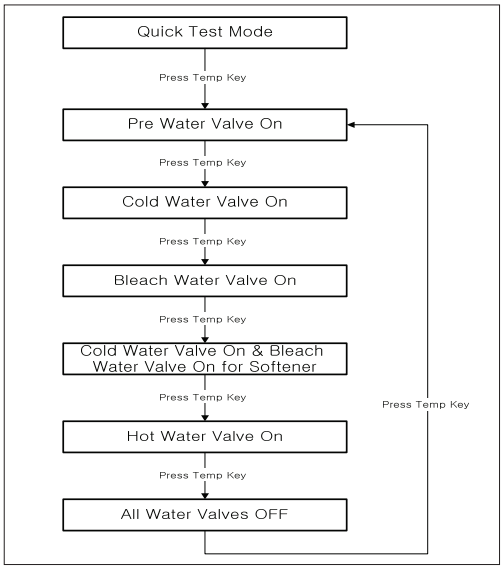
1. All LED's light up and it sends out Beep Sound when it enters into the Quick Test Mode. (Including 7-Segment)

2. Displays software version for a sec.
   (Ex. If S/W Version is 60, 7-Segment will display U060)

3. After displaying the software version, 7-Segment will display the following information for each model.
   - F1 : WF326LAW, WF326LAS
   - F2 : WF316LAW
   - F2b: WF316BAC, WF316BAW
   - F3 : WF306LAW
   - F8b: WF306BHW
   - EEEE : Model option Error (Need to replace PCB Assy.)

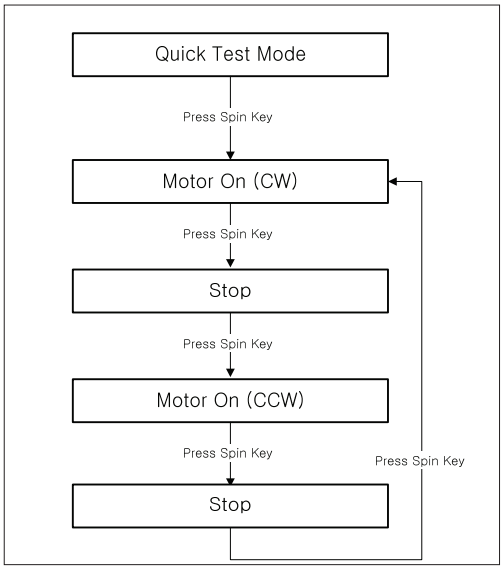
4. When model information is being displayed, press the following keys to test various components.
   - Temp Key : Water Valve Test
   - Spin Key : Motor Test
   - Soil Level Key : Door Lock/Unlock Test
   - Signal Key : Drain Pump Test.

4-2-1. Quick Test Mode



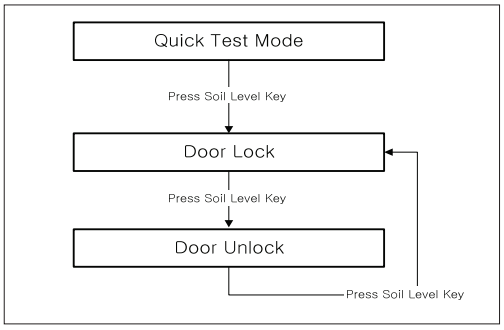
Water Valve Test:

1. To enter the Water Valve Test, press the Temp Key while model information is being displayed during the Quick Test Mode.
2. Each time the Temp Key is pressed, it will cycle through the operations on the left flow chart. But, WF306LAW(F3) and WF306BHW(F8b) do not have the pre water valve. So, it will skip Pre Water Valve On and jump to Cold Water Valve On.
3. If the Temp Key is pressed during All Water Valve OFF, the machine will return to the beginning as shown in the flow chart.
4. The door needs to be secured for the Water Valve to operate. Therefore, the door lock will be on during the water valve operation.
5. If there is any problem with Water Valve, PCB Assy. or Wire Harness, the water valves could not operate. So, to make sure for the water valves to operate, check visually if water comes out with each Water Valve On mode.



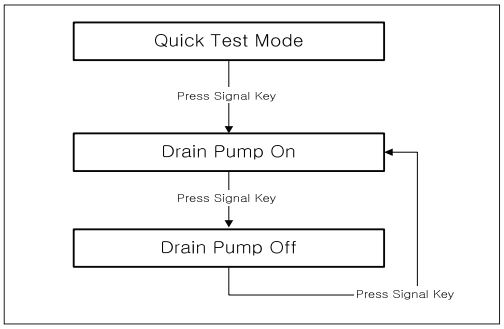
Motor Test:

1. To enter the Motor Test, press the Spin Key while model information is being displayed during the Quick Test Mode.
2. Each time the Spin Key is pressed, it will cycle through the operations on the left flow chart.
4. The Door Lock will be on during the motor operation.
5. If there is any problem with Motor, PCB Assy. or Wire Harness,related error codes will be displayed.



Door Lock/Unlock Test:

1. To check the Door Lock/Unlock operation, press the Soil Level Key while model information is being displayed during the Quick Test Mode.
2. Each time the Soil Level Key is pressed, it will cycle through the Door Lock/ Unlock operations on the left flow chart.
3. If the Soil Level Key is pressed during Door Lock and Water Valve, Motor or Drain Pump operation, all of the operations will stop. And, when the Soil Level Key is pressed again,the door will be released.
4. If there is any problem with Door Switch, PCB Assy. or Wire Harness, related error codes will be displayed.



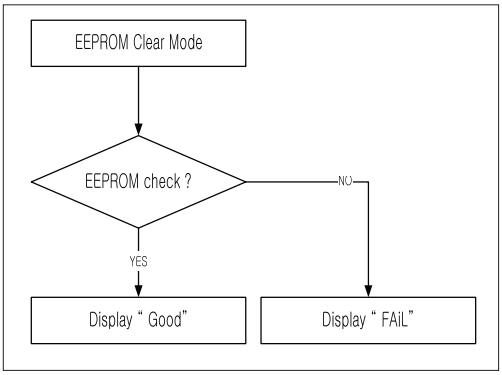
Drain Pump Test:

1. To check the Drain Pump operation, press the Signal Key while model information is being displayed during the Quick Test Mode.
2. Each time the Signal Key is pressed, it will cycle through the operations on the left flow chart.
3. The Drain Pump operation is independent. Therefore, it will operate regardless of Door Lock/Unlock.
4. If there is any problem with Drain Pump, PCB Assy. or Wire Harness, the Drain Pump will not operate. So, its operation needs a visual inspection.

4-2-2. EEPROM Reset Mode

Definition of EEPROM Reset Mode:
- EEPROM initialization.
- All course/option settings are to be reset to default values after EEPROM initialization.
- When Service arises and it needs PCB replacement, EEPROM should be reset.

How to Enter:
- The unit needs to be on.
- Press Delay Start Key, Signal Key and Power Key at the same time.
  (Same for all Frontier models.)



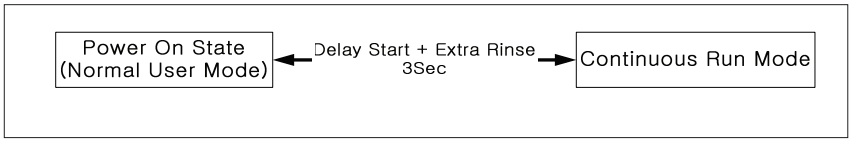
EEPROM Reset Mode:

1. EEPROM can be reset once the user enters the EEPROM Clear Mode.
2. If there is any problem with EEPROM, 7-Segment will display " FAiL ". "Good" will be displayed if everything is OK.
3. PCB assy. needs replacing if "FAiL" is displayed during EEPROM reset.
4. If PCB assy. is replaced for some reason, EEPROM needs resetting.
5. If problem occurs with Sticky Function, My Cycle and Power Failure Compensation, it may be due to EEPROM .
   Check EEPROM's condition at EEPROM Clear Mode.

4-2-3. Continuous Run Mode

Definition of Continuous Run Mode:
- Will continuously repeat the current cycle until the Continuous Run Mode is cancelled.

How to Enter:
- Press Delay Start Key and Extra Rinse Key together for 3 sec.
  (Same for all Frontier models.)



Continuous Run Mode:

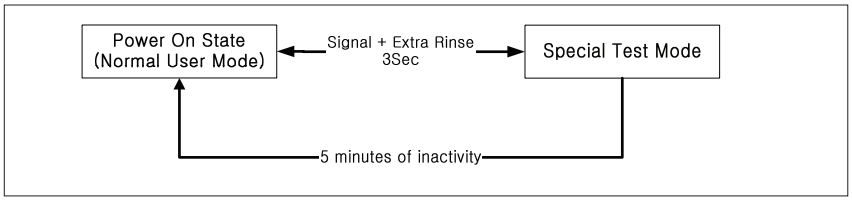
1. Press Delay Start + Extra Rinse Key for 3 sec during Power On State (Normal User Mode) .
2. Once in Continuous Run Mode, 7-Segment will blink "cc" and the remaining time in turns.
3. The Continuous Run Mode will repeat the previous cycle until continuous run mode is cancelled.
4. During Continuous Run Mode, press Delay Start + Extra Rinse Key for 3 seconds to return to normal user mode.
   7-segment will no longer display "cc", but only display the remaining time.

4-2-4. Special Test Mode

Definition of Special Test Mode:
- Special Test Mode enables service technicians to verify the operation of the washing machine and do troubleshooting.
- Special Test Mode can be entered during all washing cycle without interrupting the cycle except some of test modes.
- Various tests can be done with Special Test Mode. So, troubleshooting can be done based on the resulting diagnostic codes.

How to Enter:
- To enter the Special Test Mode, press the Signal and Extra Rinse Keys for 3 seconds or until the unit sends out beeping sounds. (same for all Frontier models.)

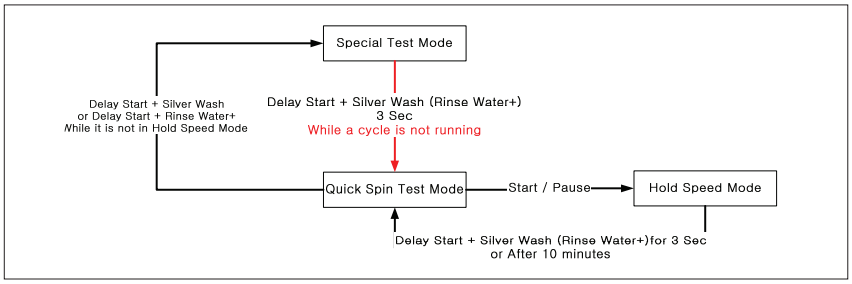
4-2-4. Special Test Mode



Special Test Mode:

1. The washer must be on to go into the Special Test Mode.
2. The motor speed will be displayed when started (It displays 0 when the motor does not spin).
3. The present state of the machine will not be changed.
   (i.e., the current cycle in progress will not be interrupted and only the display will change)
4. All LED's will be turned off except the "Door Lock" LED. It will continue to display the condition of the door lock.
5. To exit Special Test Mode, press Signal and Extra Rinse Keys for 3 second again, or Power Key.
   If no key is operated during Special Test Mode for 5 minutes, the machine will return to normal user mode.

4-2-5. Quick Spin Test Mode


Special Test Mode
Delay Start + Silver Wash
or Delay Start + Rinse Water+
While it is not in Hold Speed Mode
Delay Start + Silver Wash (Rinse Water+)
3 Sec
While a cycle is not running
Quick Spin Test Mode
Start / Pause
Hold Speed Mode
Delay Start + Silver Wash (Rinse Water+)for 3 Sec
or After 10 minutes

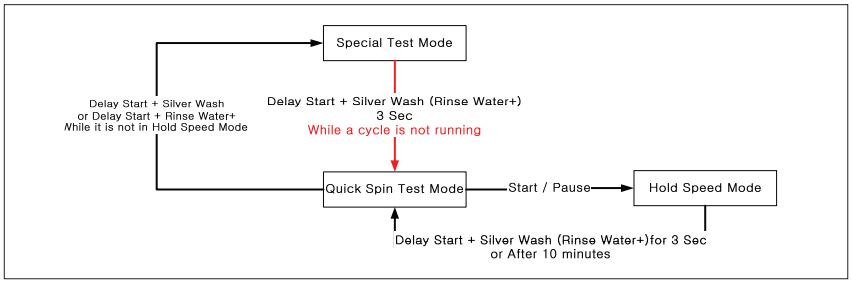
Definition of Quick Spin Test Mode:
- Quick Spin Test Mode is to do Spin Check. (High RPM)
How to Enter:
- During Special Test Mode, press the Delay Start and Silver Wash Keys (Rinse Water + Key) for 3 seconds to enter Quick Spin Test Mode. (same for all Frontier models.)
- Cannot enter once the washing cycle has started.

Quick Spin Test Mode:

As it enters into the Quick Spin Test Mode, it starts spinning and reaches to its maximum RPM. And then, it stays at its maximum speed for 2 minutes before it exits the Quick Spin Test Mode.

To hold Quick Spin Test Mode (entering Speed Hold Mode), press the Start/Pause button. If the Start/Pause button is pressed during Quick Spin Test Mode, it will stop accelerating and hold its spinning speed for 10 minutes before going back to Quick Spin Test Mode.
Also, to cancel the hold and allow Quick Spin Test Mode to continue, press the Delay Start and Silver Wash Keys together for 3 seconds.

4-2-6. Cycle Count Check Mode


Special Test Mode
Delay Start + Silver Wash
or Delay Start + Rinse Water+
While it is not in Hold Speed Mode
Delay Start + Silver Wash (Rinse Water+)
3 Sec
While a cycle is not running
Quick Spin Test Mode
Start / Pause
Hold Speed Mode
Delay Start + Silver Wash (Rinse Water+)for 3 Sec
or After 10 minutes

Definition of Cycle Count Check Mode:
- Cycle Count Check Mode is to tally up the number of washings.

How to Enter:
- To enter the Cycle Count Check Mode, press the Signal Key during Special Test Mode.
  (same for all Frontier models.)

Cycle Count Check Mode:

1. Activate the Special Test Mode in advance.

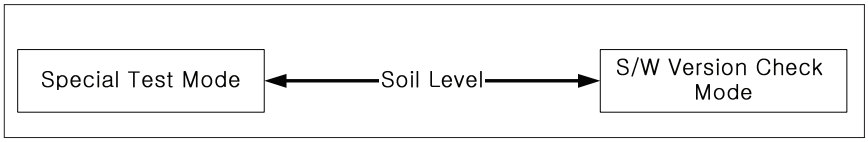
2. When the Signal key is pressed, the total number of washings will light up and a signal LED will glow (Louder, Softer, Off LED).

3. The maximum number of cycles will be 2999.
   The counter will roll over to 0 and start counting again after 2999.

4. The counting will be carried out at the end of the normal cycle.
   (During Continuous Run Mode, it does not Do not count any cycle in Continuous Run Mode)

5. To exit the Cycle Count Check Mode, press the “Signal” key again.
   Then, it returns to the Special Test Mode with motor RPM illuminating.

4-2-7. S/W Version Check Mode



Definition of S/W Version Check Mode:
- S/W Version Check Mode is to bring up S/W Version information.

How to Enter:
- To enter the S/W Version Check Mode, press the Soil Level Key during Special Test Mode.
  (same for all Frontier models.)

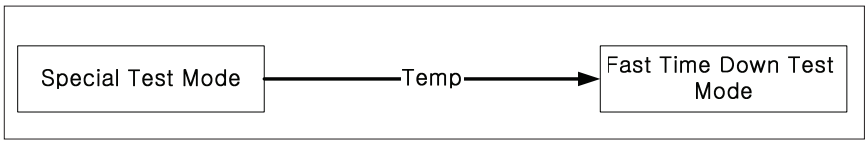
S/W Version Check Mode:

1. Activate the Special Test Mode in advance.

2. Press the Soil Level Key to bring up its software Version
   EX) Generate F005 at Version 05 (F0 is model code, 05 is it’s software version)

3. To exit the S/W Version Check Mode, press the Soil Level S/W once again.
   Then, it returns to the Special Test Mode with motor RPM illuminating.

4-2-8. Fast Time Down Test Mode



Definition of Fast Time Down Test Mode:
- Fast Time Down Test Mode is to forward the program to the next cycle stage.

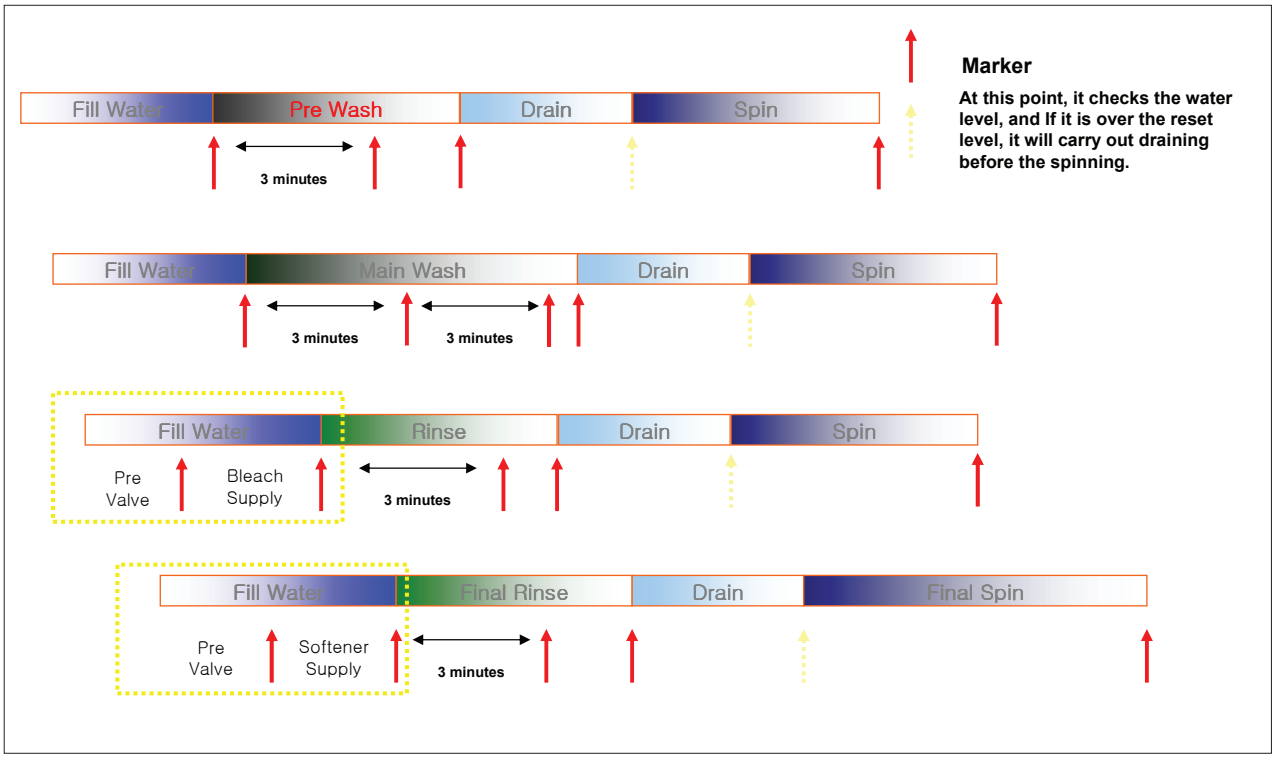
How to Enter:
- To enter the Fast Time Down Test Mode, press the Temp key during Special Test Mode. (same for all Frontier models.)

Fast Time Down Test Mode:

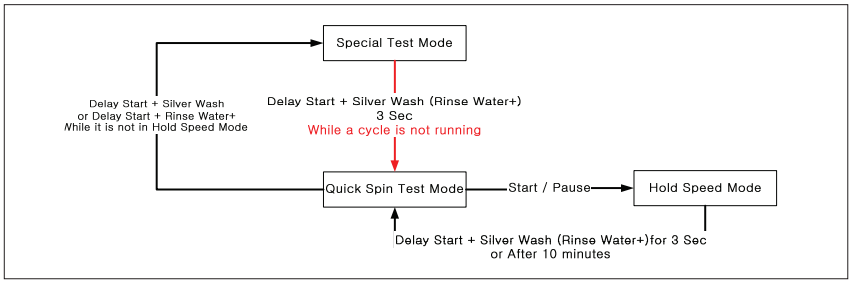
1. Activate the Special Test Mode in advance.

2. To forward the program to the next cycle stage, press the Temp key.

Each stage is located at key points of a complete cycle as follows:
- End of Each Fill (Beginning of Wash or Rinse Tumble Session)
- Beginning of Drain Session
- Beginning of Spin Session (Here, it checks the water level. So, if it is over the reset level, it carries out draining before the spinning.)
- Beginning of Fill Session
- Beginning of Bleach Fill
- Beginning of Fabric Softener Fill
- Every 3 minutes during Wash and Rinse Tumble Session



4-2-9. Board Input Test Mode

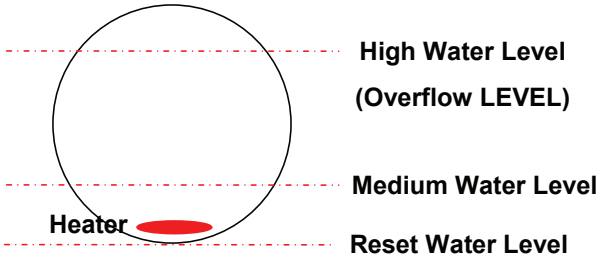

Special Test Mode
Delay Start + Silver Wash
or Delay Start + Rinse Water+
While it is not in Hold Speed Mode
Delay Start + Silver Wash (Rinse Water+)
3 Sec
While a cycle is not running
Quick Spin Test Mode
Start / Pause
Hold Speed Mode
Delay Start + Silver Wash (Rinse Water+)for 3 Sec
or After 10 minutes

Definition of Board Input Test Mode:
- Board Input Test Mode is to displays a specified input after a key press.

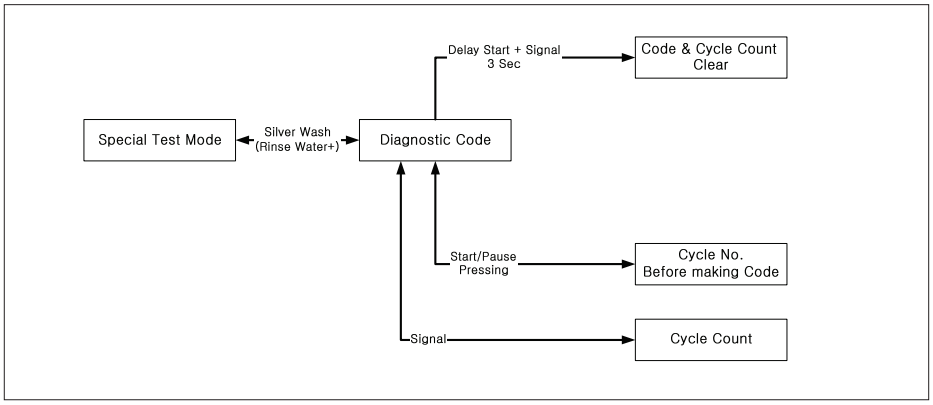
How to Enter:
- To enter the Board Input Test Mode, press the Extra Wash key during Special Test Mode.
  (same for all Frontier models.)

Board Input Test Mode:

1. Activate the Special Test Mode first.
2. Press the Extra Wash key to start Board Input Test.
3. Water Temperature Display in Celsius Dial the Rotary Cycle Selector to “Heavy Duty” and press the Start/Pause dial.
4. Water Temperature Display in Fahrenheit Dial the Rotary Cycle Selector to “Normal” and press the Start/Pause dial.
5. Door Position (Open/Close) Display Dial the Rotary Cycle Selector to “Whites” and press the Start/Pause dial: “OP” will illuminate if open, “CL” if closed.
6. Door Status (Lock/Unlock) Display Dial the Rotary Cycle Selector to “Perm Press” and press the Start/Pause dial: “UL” will illuminate if unlocked, “LO” if locked.
7. Overflow Water Level Display Dial the Rotary Cycle Selector to “Delicate/Hand Wash” and press the Start/Pause dial: “ ¯0 ” will illuminate if below level, “ ¯1 ” if above level (Overflow). The above water level is defined as the overflow water level.
8. Heater-On Water Level Display Dial the Rotary Cycle Selector to “Wool” and press the Start/Pause dial: “ -0” will illuminate if below level, “-1” if above level (Heater-On). The Medium water level is defined as the level needed for the heater to turn on.
9. Reset Water Level Display Dial the Rotary Cycle Selector to “Quick Wash” and press the Start/Pause dial: “_0” will illuminate if below level (Reset), “_1” if above level.
10. Water Level Display (Frequency) Dial the Rotary Cycle Selector to “Towels” and press the Start/Pause dial: If it illuminates “2435”, it indicates 24.35 kHz.
11. AG Kit Status Dial the Rotary Cycle Selector to “Rinse+Spin” and press the Start/Pause dial. Then, it will display the Ag Kit Status in 3 seconds: “- -” if AG kit is operated properly. “7E” if AG kit is out of order (check wire harness & PCB)
12. MEMS Sensor Kit Status. Dial the Rotary Cycle Selector to “Spin Only” and press the Start/Pause dial. Then, it will display the MEMS Sensor Kit status after displaying “00” for 3 seconds: “- -” if MEMS Sensor kit is operated properly. “8E” if MEMS Sensor kit is out of order (check wire harness & PCB)



4-2-10. Diagnostic Code Check Mode



Definition of Diagnostic Code Check Mode:
- Diagnostic Code Check Mode is to bring up the stored diagnostic codes (reference codes for service technicians).

How to Enter:
- To enter the Diagnostic Code Check Mode with code “d” flashing, press the Silver Wash (Rinse Water +) during Special Test Mode. (same for all Frontier models.)

Board Input Test Mode:

1. Activate the Special Test Mode first.
2. Press the “Silver Wash (Rinse Water +)” key to start Diagnostic Code Check Mode with Code “d” flashing.
3. To cycle through the diagnostic codes (d1,d2,d3~d9), turn the Rotary Cycle Selector in one direction (either Clockwise or Counterclockwise).
4. Now, when turning the Rotary Selector Key in the same direction, it shows diagnostic codes from the latest (d1).
5. When turning it in the opposite direction, it shows the diagnostic codes in the reverse order.
   Ex) When it stops at d5 and turns backward, it shows from d4 down to “d”.
6. EEPROM holds the codes up to 9 of them. So, when it goes beyond it, “- -” and “d” will light up.
   Ex) “d” – d1~d9 – “- -”
7. When there are only 6 codes stored in EEPROM, it will display “- -” after them.

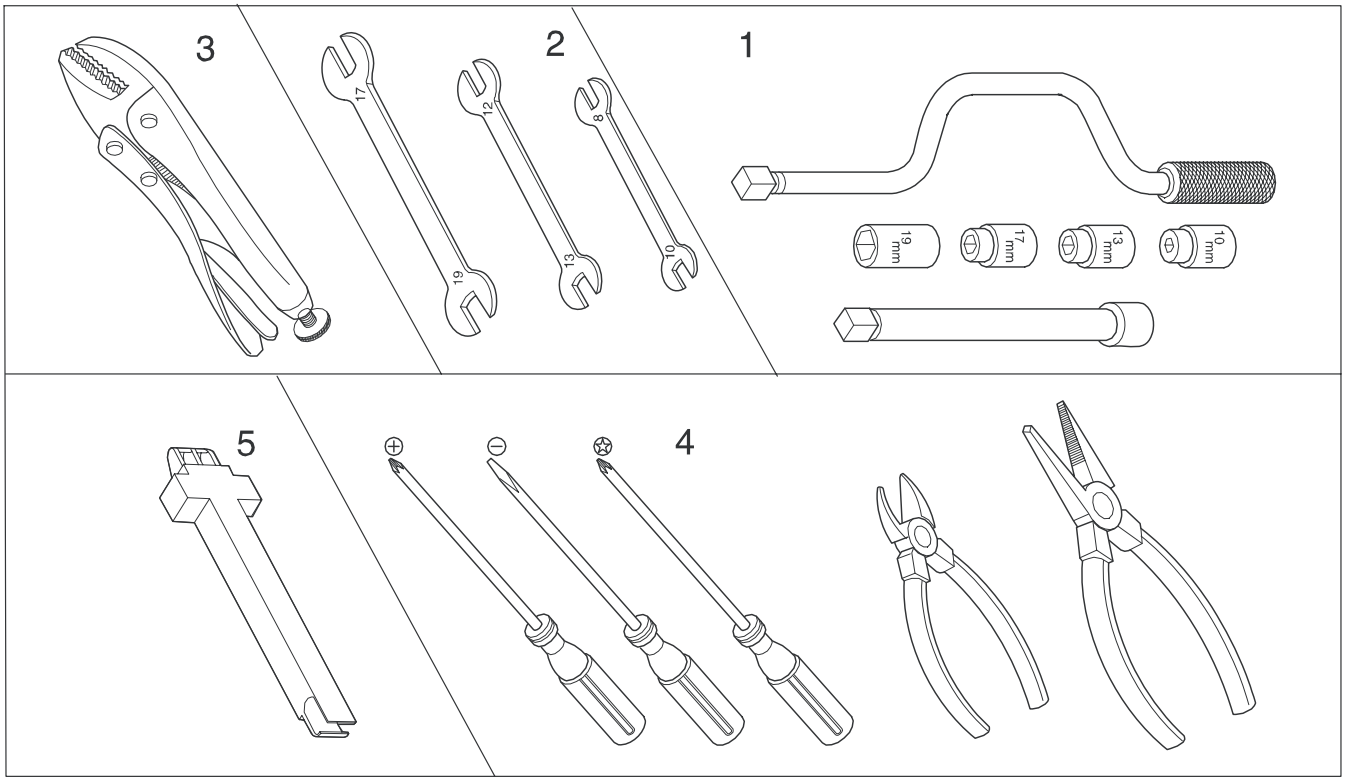
Refer to Diagnostic Code.

Memo

5. ASSEMBLY AND DISASSEMBLY

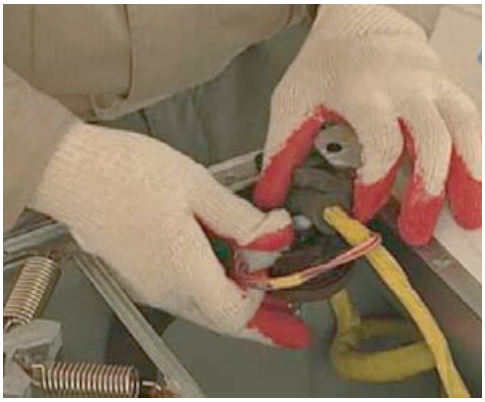
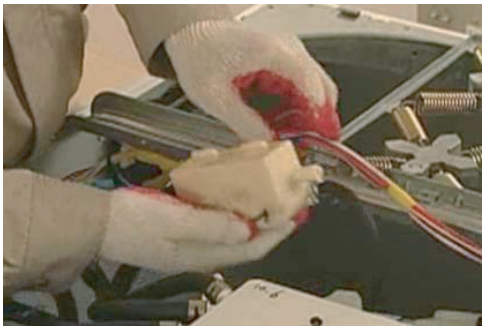
5-1. TOOLS FOR DISASSEMBLY AND ASSEMBLY

NO.	TOOL		
1	Box driver	10mm 13mm 19mm	Heater (1) Motor (1), Balance (5), 2 holes of each left and right of the shock absorber 1 Pulley hole
2	Double-ended spanner	10, 13,19mm	Replaceable for the box driver. Since the bolt runs idle when the box driver is used, use the box driver 17mm.
3	Vice pliers		Tool to protect the idle and abrasion of the bolt for the box driver.
4	Other(Driver, Nipper, Long nose)		General tools for the after service.
5	JIG for the Tub		1 (Disassemble and Assemble)

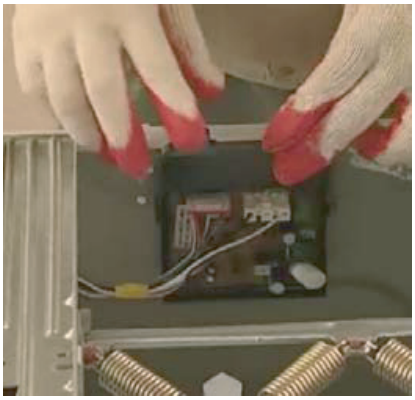
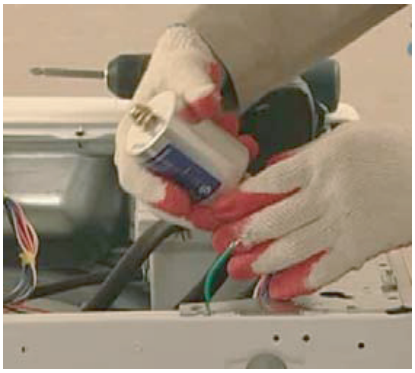
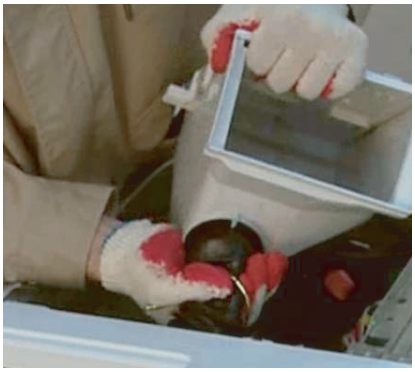


5-2. DISASSEMBLY

Warning! To avoid risk of electrical shock, personal injury or death, disconnect the power to the washing machine.

Part Name	Descriptive Picture	How To Do
Top Cover		1. Unplug the unit. 2. Remove screws(2ea) at the back. 3. Slide Top Cover back and lift it up.
MEMS Sensor		1. Unplug the unit. 2. Remove Top Cover. 3. Disconnect the wire harness. 4. Remove the screws(2ea)
Water Level Sensor		1. Unplug the unit. 2. Remove Top Cover. 3. Remove the screw(1ea). 4. Disconnect the wire harness. 5. Take out Pressure Hose.
Ag Kit		1. Unplug the unit. 2. Remove Top Cover. 3. Remove screws(2ea) from the rail. 4. Disconnect the wire harness. 4. Remove clamps and hoses.

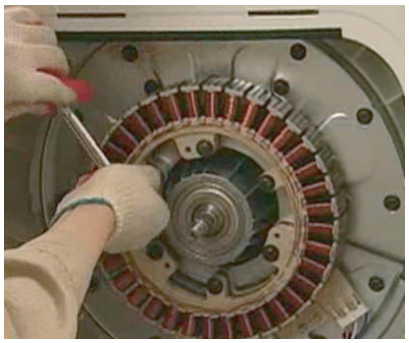
5-2. DISASSEMBLY

Part Name	Descriptive Picture	How To Do
Ag PCB		1. Unplug the unit. 2. Remove Top Cover. 3. Flip open the PCB cover. 4. Disconnect the wire harness. 5. Remove screws (2ea) on the frame.
EMI Filter		1. Unplug the unit. 2. Remove Top Cover. 3. Remove the earth screw. 3. Remove the acorn nut (13mm) and disconnect the wire harness.
Water Valve		1. Unplug the unit. 2. Remove Top Cover. 3. Remove two screws for each Single Hot and 3-Combo Cold Valve. 4. Remove clamps and hoses.
Dispenser		1. Unplug the unit. 2. Remove Top Cover. 3. Remove Dispenser Drawer. 4. Remove screws(3ea) on the top. 5. Plug out all the connectors. 6. Unscrew(6ea) PCB and separate it from Console.

5-2. DISASSEMBLY

Part Name	Descriptive Picture	How To Do
Console		1. Unplug the unit. 2. Remove Top Cover. 3. Remove Dispenser Drawer. 4. Remove screws(3ea) on the top. 5. Plug out all the connectors. 6. Unscrew(6ea) PCB and separate it from Console.
Door		1. Unplug the unit. 2. Remove screws(2ea) and takeout Door Assy from Front Panel. 3. Remove screws along the perimeter of Glass Retainer. 4. Remove Glass Retainer. 5. Remove Door Glass. 6. Remove Hinge. 7. Remove Outer Window Panel.
Front Panel		1. Unplug the unit. 2. Remove Top Cover, Dispenser, Console and Door. 4. Snap up the boot at 6 o'clock and pull out the clamp spring. 5. Pull the boot from the lip formed into the front opening. 6. Remove screws(2ea) on the bottom. 7. Remove screws(4ea) on the top. 8. Plug out the connectors to Door Lock. 9. Lift out Front Panel.
Boot		1. Unplug the unit. 2. Knock the unit down to Front Panel (included). 3. Unscrew the boot clamp at 12 o'clock. 4. Pull out the boot.

5-2. DISASSEMBLY

Part Name	Descriptive Picture	How To Do
Heater		1. Unplug the unit. 2. Knock the unit down to Front Panel (included). 3. Remove the wire connectors. 4. Remove the nut (10mm) in the center and take out Heater.
Motor		1. Unplug the unit. 2. After removing screws(2ea) on Back Cover, take out Back Cover by sliding it up. 4. Rotate Motor Cover to locate a slot in Stator. Insert a Phillips screwdriver into the slot to lock Stator. 5. Remove the nut (19mm). 6. Grab Motor Cover at 3 and 9 o'clock and pull it out. 7. Remove the bolts (6ea, 10mm) securing Stator Coil to Tub. 8. Remove the wire connectors.
Drain Pump		1. Unplug the unit. 2. Remove Back Cover. 3. Remove the wire connector. 4. Remove Clamp and Drain Hose. 5. Remove Clamp and Pump Hose. 6. Remove the bolts (3ea, 13mm) securing Drain Pump to Cabinet Bottom. 7. Remove the screw securing Drain Pump to the support bracket. Twist Drain Pump clockwise to remove. * Make sure to put an empty container under Drain Pump to hold water inside.

5-2. DISASSEMBLY

Part Name	Descriptive Picture	How To Do
Outer Tub and Spinner(1)		1. After the above knock-down to Drain Pump, do the following. 2. Remove screws holding the wire harness. 3. Remove the bolts (2ea,13mm) securing Rear Struts to Cabinet Bottom. 4. Swing Struts up against Tub to make it easy to remove Tub Assy. 5. Remove bolts (2ea each side, 13mm) securing Counter Weights. 6. Remove the screw holding the wire harness. 7. Remove bolts (2ea each side, 13mm) securing Front Struts to Cabinet Bottom and swing Struts up against Tub.. 8. Loop the wire harness and Water Pressure Hose out of its retaining holders. 9. Remove screws (7ea) securing Rail Frame and take it off. 10. Remove Clamp and Vent Hose. 11. Loop out Suspension Spring by lifting it up (each side). 12. Take out Tub and put it on block supports (4” wood blocks or their equivalents) to prevent shaft damage. 13. Remove screws (10mm) around the perimeter of the tub. 14. Separate Front and Back Tubs from each other. 15. Take out Spinner Drum. 16. Remove screws to disassemble Baffles. * When assembling, make sure that Front and Back Tubs are fastened up tightly. If not, it will cause water leakage.

6. TROUBLE SHOOTING

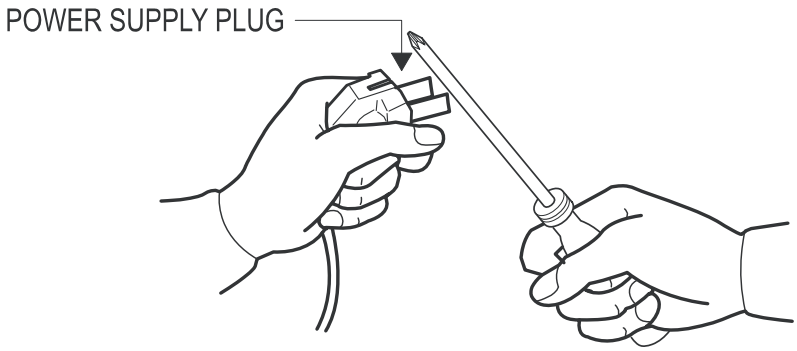
6-1. TROUBLE DIAGNOSIS

- As the micom wash machine is configured of the complicate structure, there might be the service call.
  Below information is prepared for exact trouble diagnosis and suitable repair guide.

Caution for the Repair and Replacement

Please follow below instruction for the trouble diagnosis and parts replacement.

1) As some electronic components are damaged by the charged static electricity from the resin part of wash machine or the human body, prepare the human body earth or remove the potential differ ence of the human body and wash machine by contacting the power supply plug when the work contact ing to PCB is executed.



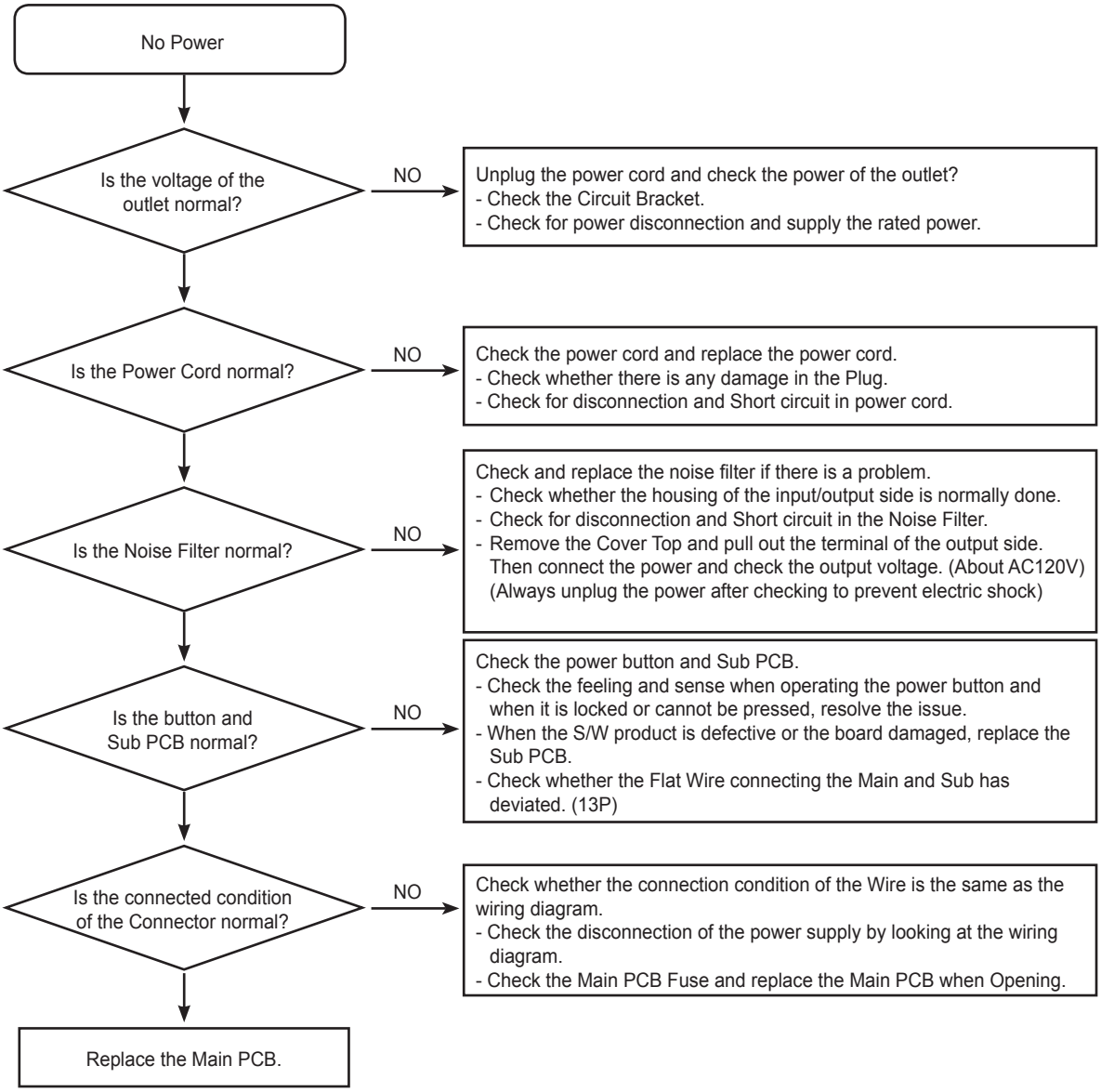
2) Since AC220~240V is applied to the triac T1 and T2 on P.C.B, the electric shock may occur by touching and be careful that the strong and weak electricity are mixed.

3) As the P.C.B assembly is designed for no trouble, do not replace the P.C.B assembly by the wrong diagnosis and follow the procedure of the trouble diagnosis when the micom is not op erated normally.

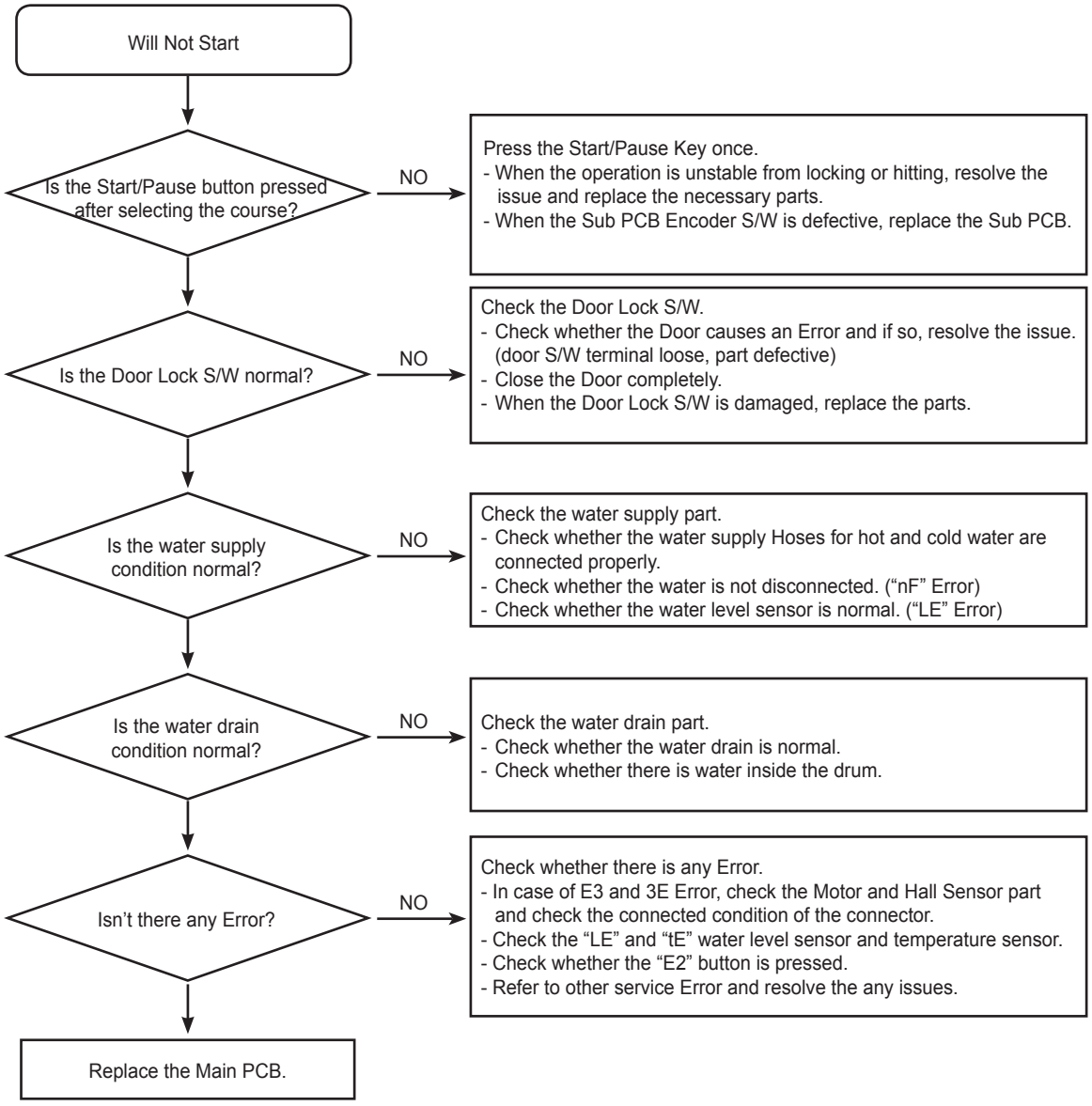
6-1. TROUBLE DIAGNOSIS

WARNING

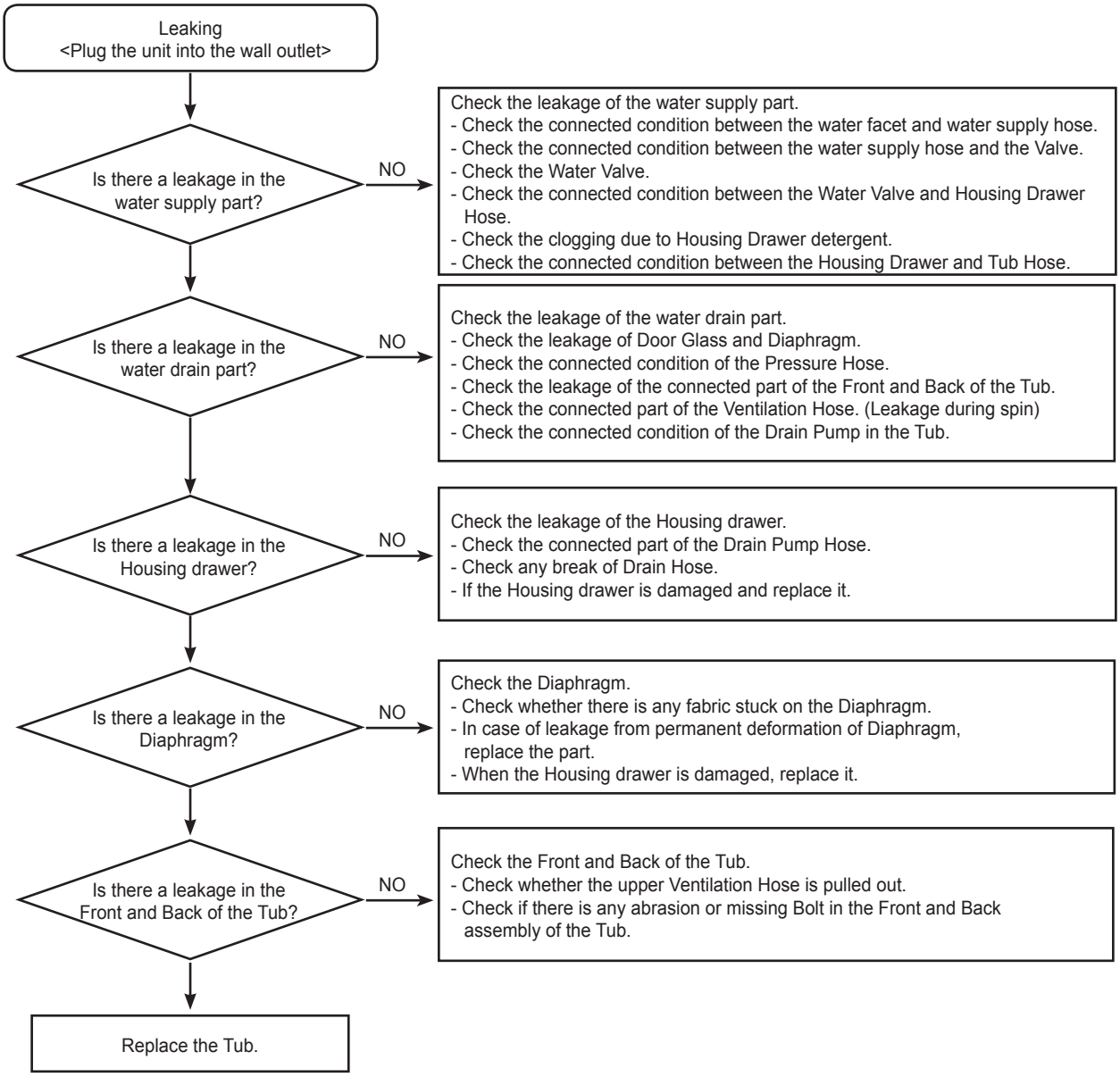
To avoid risk of electrical shock, personal injury or death, disconnect power to unit before servicing, unless testing requires power.


No Power
Is the voltage of the outlet normal?
NO
Unplug the power cord and check the power of the outlet?
- Check the Circuit Bracket.
- Check for power disconnection and supply the rated power.
Is the Power Cord normal?
NO
Check the power cord and replace the power cord.
- Check whether there is any damage in the Plug.
- Check for disconnection and Short circuit in power cord.
Is the Noise Filter normal?
NO
Check and replace the noise filter if there is a problem.
- Check whether the housing of the input/output side is normally done.
- Check for disconnection and Short circuit in the Noise Filter.
- Remove the Cover Top and pull out the terminal of the output side. Then connect the power and check the output voltage. (About AC120V) (Always unplug the power after checking to prevent electric shock)
Is the button and Sub PCB normal?
NO
Check the power button and Sub PCB.
- Check the feeling and sense when operating the power button and when it is locked or cannot be pressed, resolve the issue.
- When the S/W product is defective or the board damaged, replace the Sub PCB.
- Check whether the Flat Wire connecting the Main and Sub has deviated. (13P)
Is the connected condition of the Connector normal?
NO
Check whether the connection condition of the Wire is the same as the wiring diagram.
- Check the disconnection of the power supply by looking at the wiring diagram.
- Check the Main PCB Fuse and replace the Main PCB when Opening.
Replace the Main PCB.

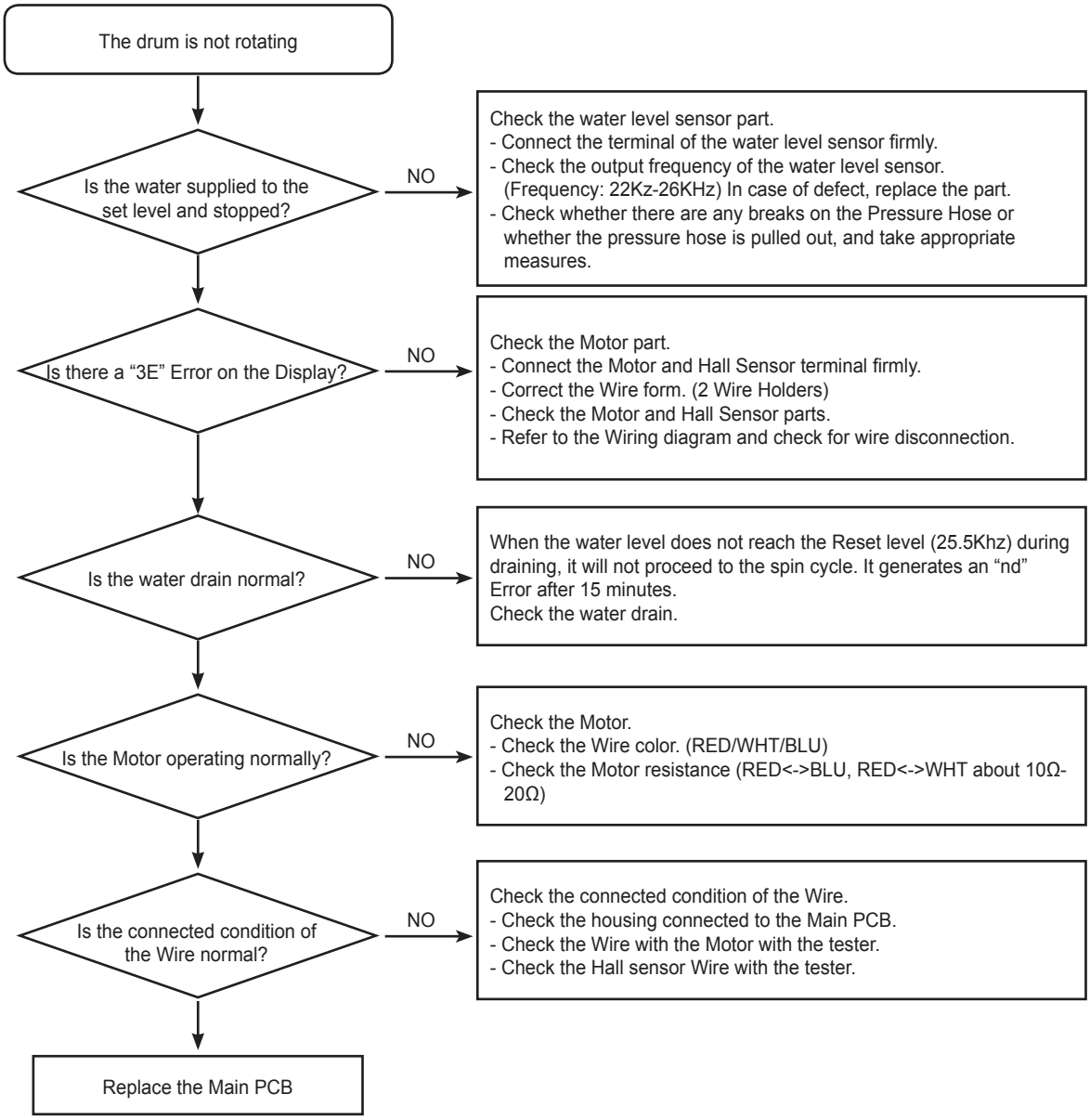
6-1. TROUBLE DIAGNOSIS


Will Not Start
Is the Start/Pause button pressed after selecting the course?
NO
Press the Start/Pause Key once.
- When the operation is unstable from locking or hitting, resolve the issue and replace the necessary parts.
- When the Sub PCB Encoder S/W is defective, replace the Sub PCB.
Is the Door Lock S/W normal?
NO
Check the Door Lock S/W.
- Check whether the Door causes an Error and if so, resolve the issue. (door S/W terminal loose, part defective)
- Close the Door completely.
- When the Door Lock S/W is damaged, replace the parts.
Is the water supply condition normal?
NO
Check the water supply part.
- Check whether the water supply Hoses for hot and cold water are connected properly.
- Check whether the water is not disconnected. (“nF” Error)
- Check whether the water level sensor is normal. (“LE” Error)
Is the water drain condition normal?
NO
Check the water drain part.
- Check whether the water drain is normal.
- Check whether there is water inside the drum.
Isn’t there any Error?
NO
Check whether there is any Error.
- In case of E3 and 3E Error, check the Motor and Hall Sensor part and check the connected condition of the connector.
- Check the “LE” and “tE” water level sensor and temperature sensor.
- Check whether the “E2” button is pressed.
- Refer to other service Error and resolve the any issues.
Replace the Main PCB.

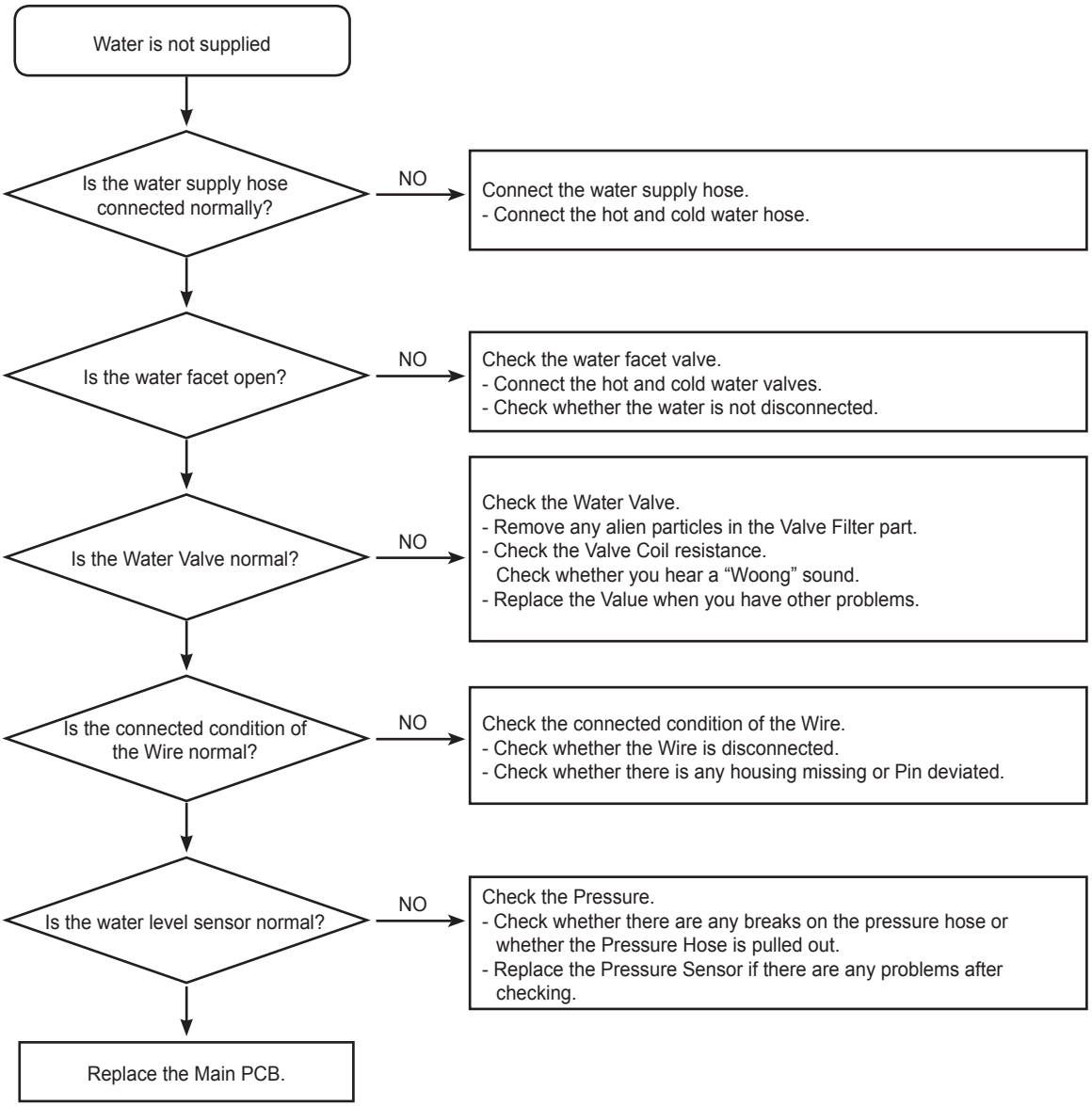
6-1. TROUBLE DIAGNOSIS

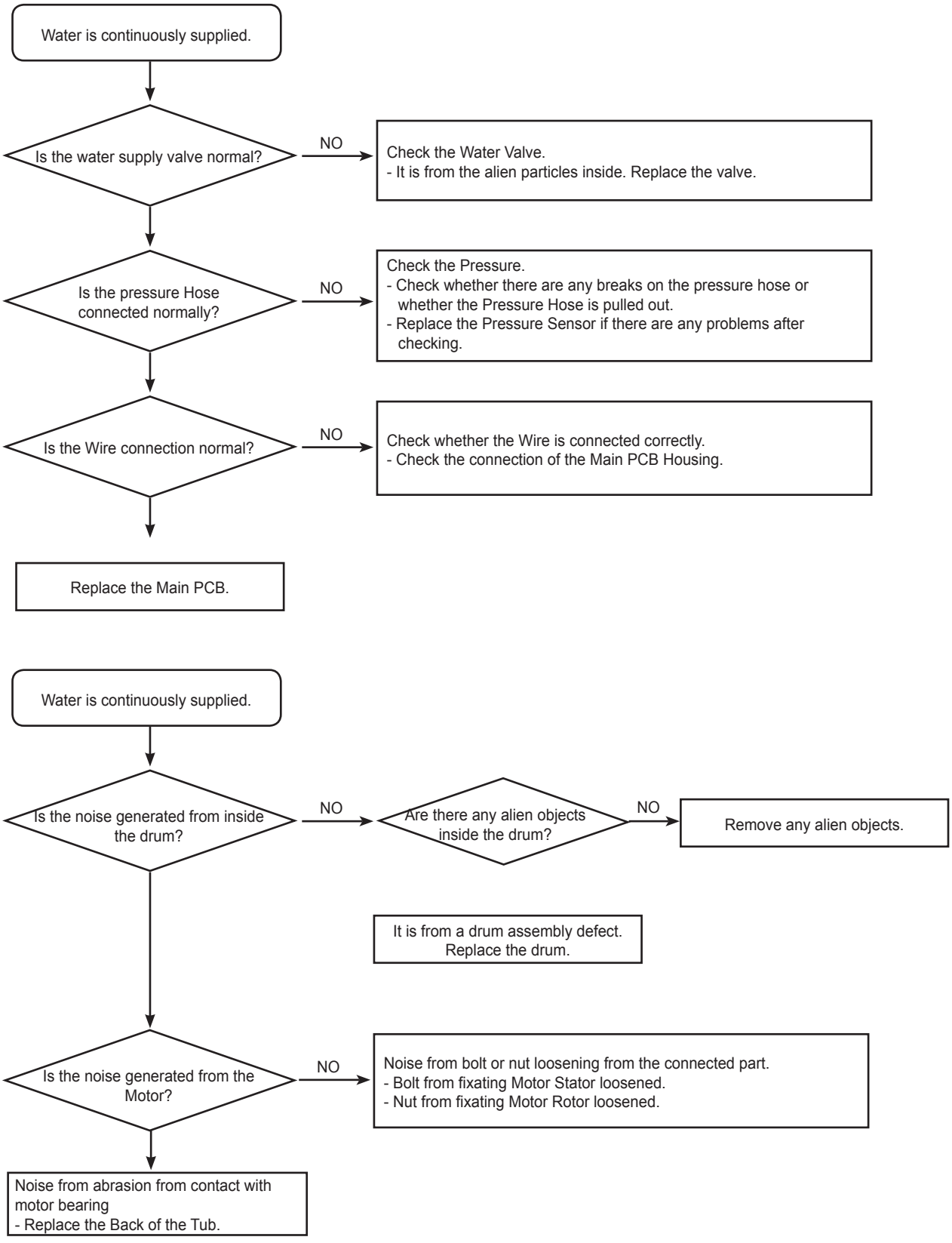

Leaking
<Plug the unit into the wall outlet>
Is there a leakage in the water supply part?
NO
Check the leakage of the water supply part.
- Check the connected condition between the water facet and water supply hose.
- Check the connected condition between the water supply hose and the Valve.
- Check the Water Valve.
- Check the connected condition between the Water Valve and Housing Drawer Hose.
- Check the clogging due to Housing Drawer detergent.
- Check the connected condition between the Housing Drawer and Tub Hose.
Is there a leakage in the water drain part?
NO
Check the leakage of the water drain part.
- Check the leakage of Door Glass and Diaphragm.
- Check the connected condition of the Pressure Hose.
- Check the leakage of the connected part of the Front and Back of the Tub.
- Check the connected part of the Ventilation Hose. (Leakage during spin)
- Check the connected condition of the Drain Pump in the Tub.
Is there a leakage in the Housing drawer?
NO
Check the leakage of the Housing drawer.
- Check the connected part of the Drain Pump Hose.
- Check any break of Drain Hose.
- If the Housing drawer is damaged and replace it.
Is there a leakage in the Diaphragm?
NO
Check the Diaphragm.
- Check whether there is any fabric stuck on the Diaphragm.
- In case of leakage from permanent deformation of Diaphragm, replace the part.
- When the Housing drawer is damaged, replace it.
Is there a leakage in the Front and Back of the Tub?
NO
Check the Front and Back of the Tub.
- Check whether the upper Ventilation Hose is pulled out.
- Check if there is any abrasion or missing Bolt in the Front and Back assembly of the Tub.
Replace the Tub.

6-1. TROUBLE DIAGNOSIS

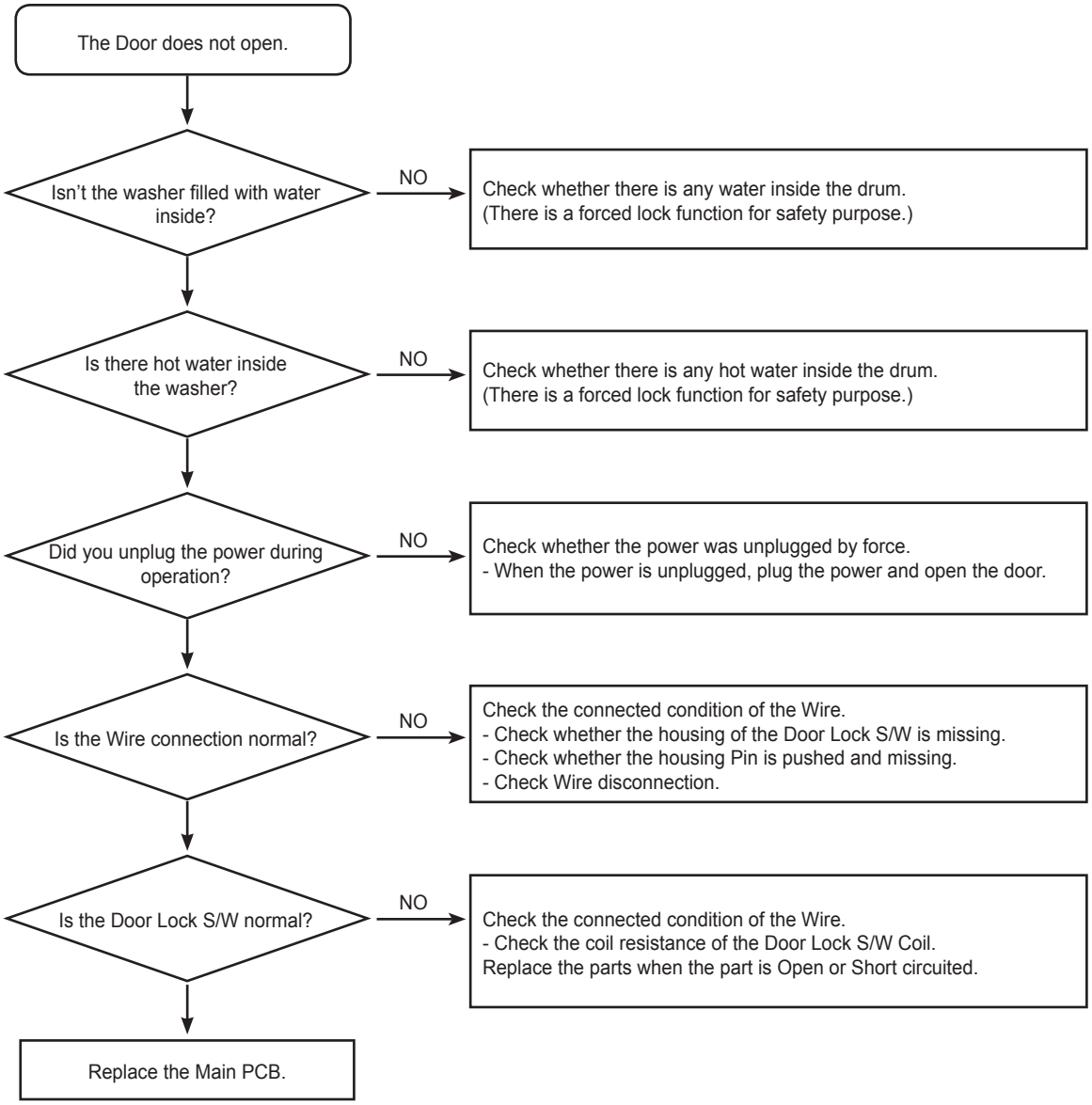

The drum is not rotating
Is the water supplied to the set level and stopped?
NO
Check the water level sensor part.
- Connect the terminal of the water level sensor firmly.
- Check the output frequency of the water level sensor. (Frequency: 22Kz-26KHz) In case of defect, replace the part.
- Check whether there are any breaks on the Pressure Hose or whether the pressure hose is pulled out, and take appropriate measures.
Is there a “3E” Error on the Display?
NO
Check the Motor part.
- Connect the Motor and Hall Sensor terminal firmly.
- Correct the Wire form. (2 Wire Holders)
- Check the Motor and Hall Sensor parts.
- Refer to the Wiring diagram and check for wire disconnection.
Is the water drain normal?
NO
When the water level does not reach the Reset level (25.5Khz) during draining, it will not proceed to the spin cycle. It generates an “nd” Error after 15 minutes.
Check the water drain.
Is the Motor operating normally?
NO
Check the Motor.
- Check the Wire color. (RED/WHT/BLU)
- Check the Motor resistance (RED<->BLU, RED<->WHT about 10Ω-20Ω)
Is the connected condition of the Wire normal?
NO
Check the connected condition of the Wire.
- Check the housing connected to the Main PCB.
- Check the Wire with the Motor with the tester.
- Check the Hall sensor Wire with the tester.
Replace the Main PCB

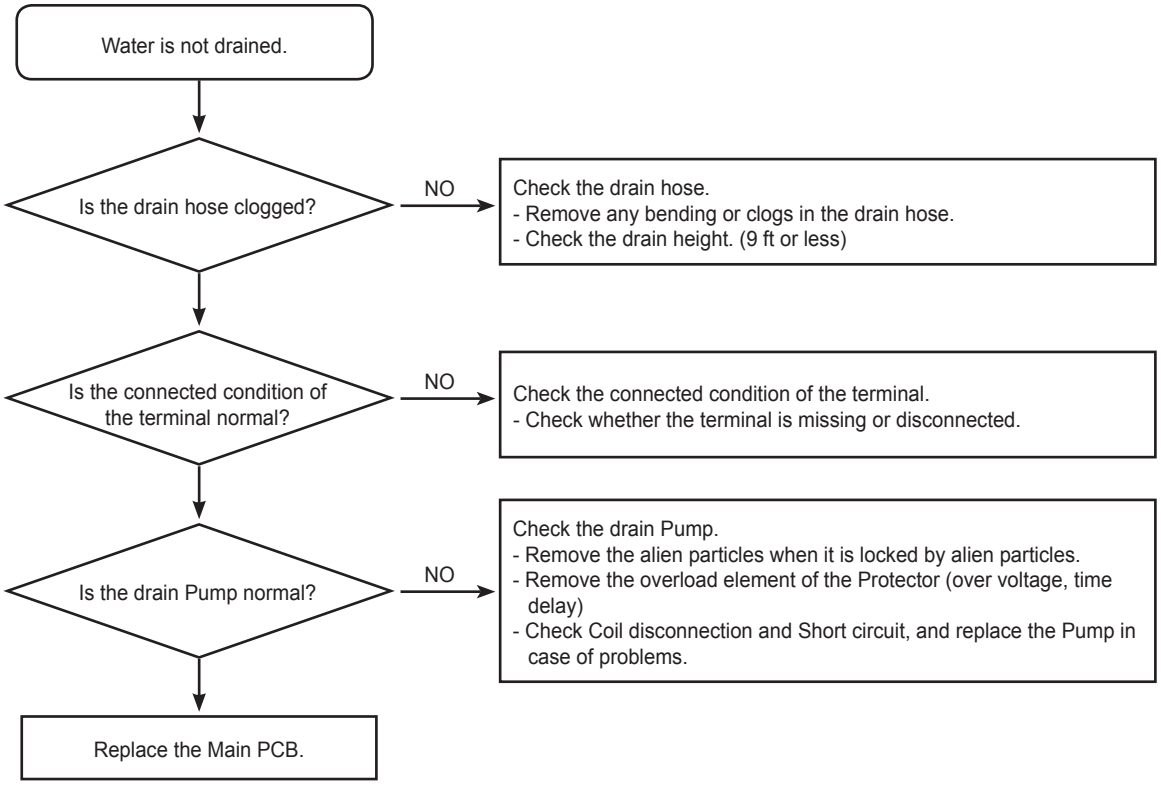
6-1. TROUBLE DIAGNOSIS


Water is not supplied
Is the water supply hose connected normally?
NO
Connect the water supply hose.
- Connect the hot and cold water hose.
Is the water facet open?
NO
Check the water facet valve.
- Connect the hot and cold water valves.
- Check whether the water is not disconnected.
Is the Water Valve normal?
NO
Check the Water Valve.
- Remove any alien particles in the Valve Filter part.
- Check the Valve Coil resistance.
Check whether you hear a “Woong” sound.
- Replace the Value when you have other problems.
Is the connected condition of the Wire normal?
NO
Check the connected condition of the Wire.
- Check whether the Wire is disconnected.
- Check whether there is any housing missing or Pin deviated.
Is the water level sensor normal?
NO
Check the Pressure.
- Check whether there are any breaks on the pressure hose or whether the Pressure Hose is pulled out.
- Replace the Pressure Sensor if there are any problems after checking.
Replace the Main PCB.


Water is continuously supplied.
Is the water supply valve normal?
NO
Check the Water Valve.
- It is from the alien particles inside. Replace the valve.
Is the pressure Hose connected normally?
NO
Check the Pressure.
- Check whether there are any breaks on the pressure hose or whether the Pressure Hose is pulled out.
- Replace the Pressure Sensor if there are any problems after checking.
Is the Wire connection normal?
NO
Check whether the Wire is connected correctly.
- Check the connection of the Main PCB Housing.
Replace the Main PCB.
Water is continuously supplied.
Is the noise generated from inside the drum?
NO
Are there any alien objects inside the drum?
NO
Remove any alien objects.
It is from a drum assembly defect.
Replace the drum.
Is the noise generated from the Motor?
NO
Noise from bolt or nut loosening from the connected part.
- Bolt from fixating Motor Stator loosened.
- Nut from fixating Motor Rotor loosened.
Noise from abrasion from contact with motor bearing
- Replace the Back of the Tub.

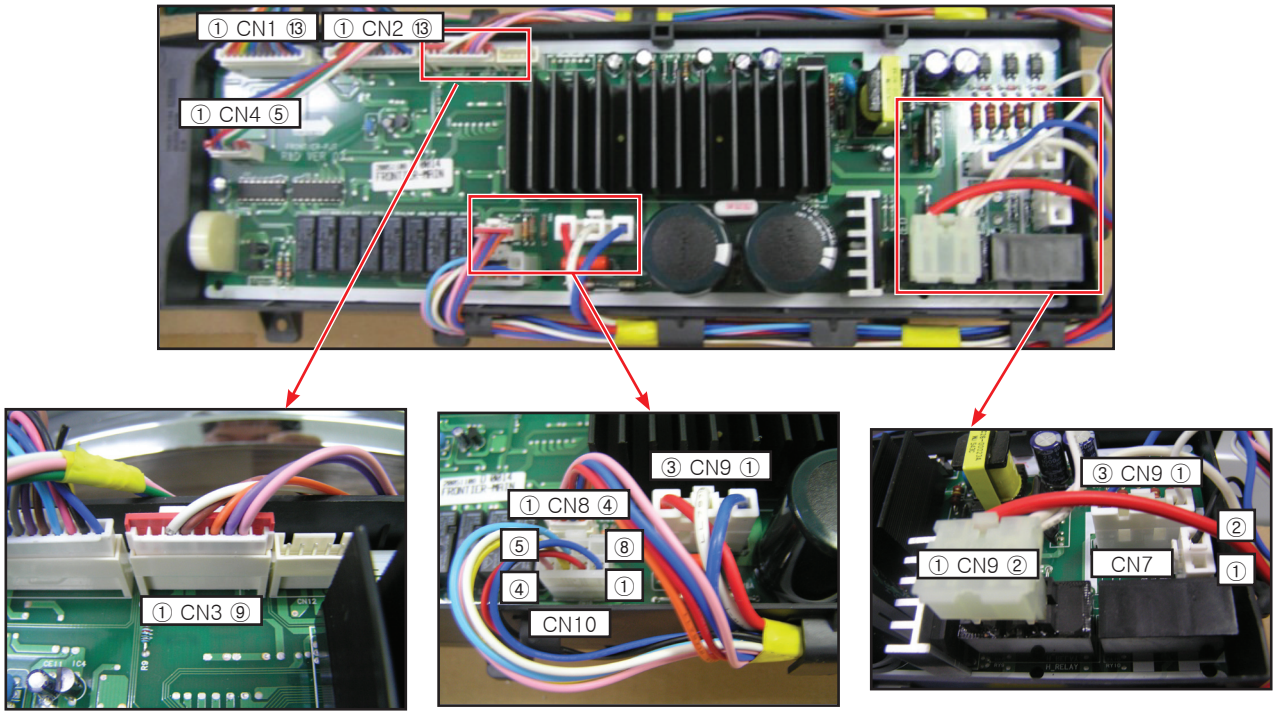
6-1. TROUBLE DIAGNOSIS


The Door does not open.
Isn't the washer filled with water inside?
NO
Check whether there is any water inside the drum.
(There is a forced lock function for safety purpose.)
Is there hot water inside the washer?
NO
Check whether there is any hot water inside the drum.
(There is a forced lock function for safety purpose.)
Did you unplug the power during operation?
NO
Check whether the power was unplugged by force.
- When the power is unplugged, plug the power and open the door.
Is the Wire connection normal?
NO
Check the connected condition of the Wire.
- Check whether the housing of the Door Lock S/W is missing.
- Check whether the housing Pin is pushed and missing.
- Check Wire disconnection.
Is the Door Lock S/W normal?
NO
Check the connected condition of the Wire.
- Check the coil resistance of the Door Lock S/W Coil.
Replace the parts when the part is Open or Short circuited.
Replace the Main PCB.


Water is not drained.
Is the drain hose clogged?
NO
Check the drain hose.
- Remove any bending or clogs in the drain hose.
- Check the drain height. (9 ft or less)
Is the connected condition of the terminal normal?
NO
Check the connected condition of the terminal.
- Check whether the terminal is missing or disconnected.
Is the drain Pump normal?
NO
Check the drain Pump.
- Remove the alien particles when it is locked by alien particles.
- Remove the overload element of the Protector (over voltage, time delay)
- Check Coil disconnection and Short circuit, and replace the Pump in case of problems.
Replace the Main PCB.

6-2. PROBLEM CHECKING AND METHOD OF PCB

-If you plug in the power cord and turn Power S/W on, memorized data is displayed.
If any data is not displayed, check the followings.



Thermistor Check
Check Voltage at Pin #6 and #3 of CN3
Tester Check = DC2.5V
If it reads 5V, check if its connector is engaged properly.

Door Switch Check
Check Voltage at Pin #6 and #4 of CN3
When Door Open = DC5V
When Door Close = DC0V

Water Sensor Check
Check Voltage and Frequency at Pin #6 and #7 of CN3
Reset water level = DC2.5V, 25.8KHz
Check Voltage and Frequency at Pin #6 and #8 of CN3
Reset water level = DC2.5V, 25.8KHz

Sump Sensor Check
Check Voltage at Pin #4 and #2 of CN8
Tester Check = DC0V or 3.75V
Check Voltage at Pin #4 and #3 of CN8
Tester Check = DC0V or 3.75V

Motor Check
Resistance at Pin #1 and #2 of CN9 =11.6Ω
Resistance at Pin #1 and #3 of CN9 =11.6Ω
Resistance at Pin #2 and #3 of CN9 =11.6Ω

Door Lock Check
Check Voltage at Pin #1 of CN5 and Pin #7 of CN10
When Door Lock = AC120V
Check Voltage at Pin #1 of CN5 and Pin #2 of CN7
When Door Lock = AC120V

Door Unlock Check
Check Voltage at Pin #1 of CN5 and Pin #8 of CN10
When Door Unlock = AC120V

Drain Motor Check
Check Voltage at Pin #1 of CN5 and Pin #6 of CN10
When Drain Pump operates = AC120V

Water Valve Check
Check Voltage at Pin #1 of CN5 and Pin #1,2,3,4 of CN10
When each Valve operates = AC120V

AC Power Check
Check Voltage at Pin #1 and #3 of CN5
Check Voltage at Pin #1 of CN5 and Pin #1 of CN6
Tester Check = AC120V

Heater Relay Check
Check Voltage at Pin #1 of CN5 and Pin #2 of RY9
When Heater Relay operates = AC120V

7. EXPLODED VIEW AND PARTS LIST

7-1. MATERIAL CODE STANDARDS

Material codes and names and their respective naming rules are managed in accordance with the prescribed standards.
Please refer to these standards when requesting a material.

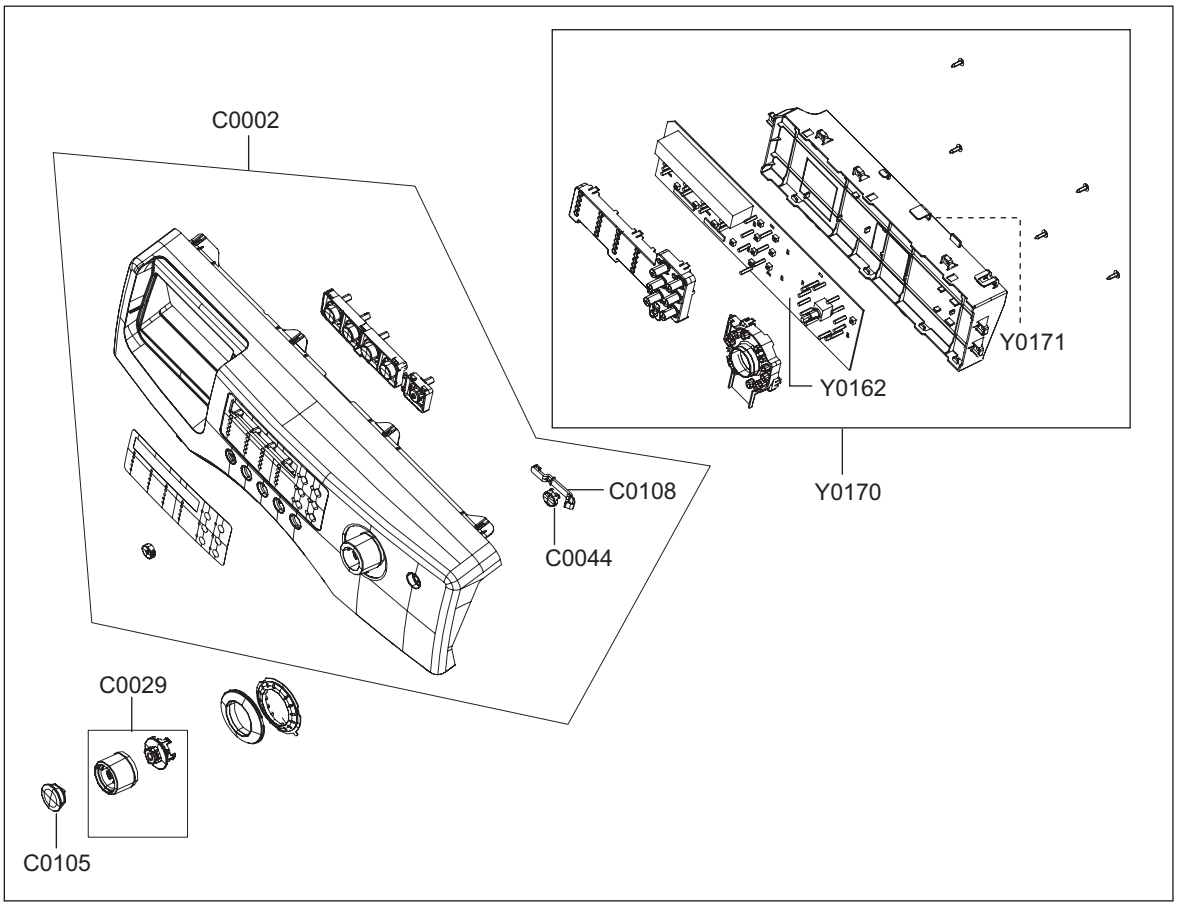
1. Material Code Type
   (●: Number, ■: Letter (Alphabet))

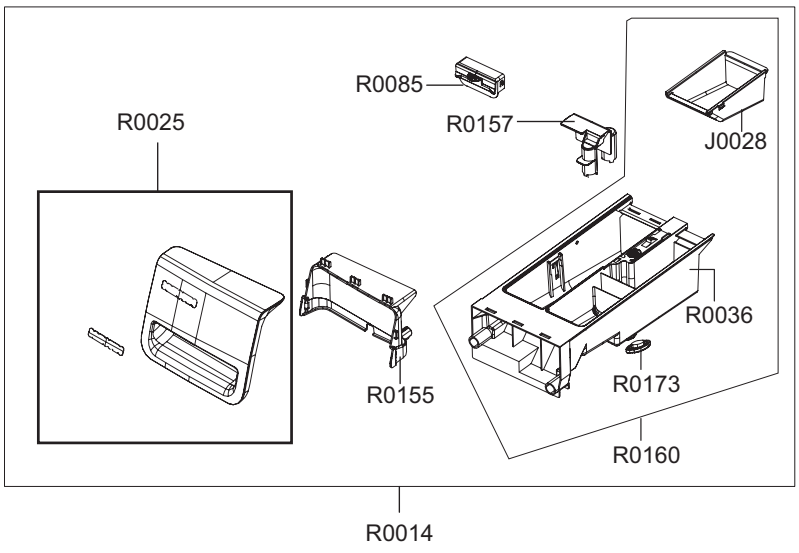
Type 1: ●●●●-●●●●●● ex) 0204-000418 FREON
Type 2: ■■●●-●●●●●■ ex) DC96-01390A ASSY-CONTROL

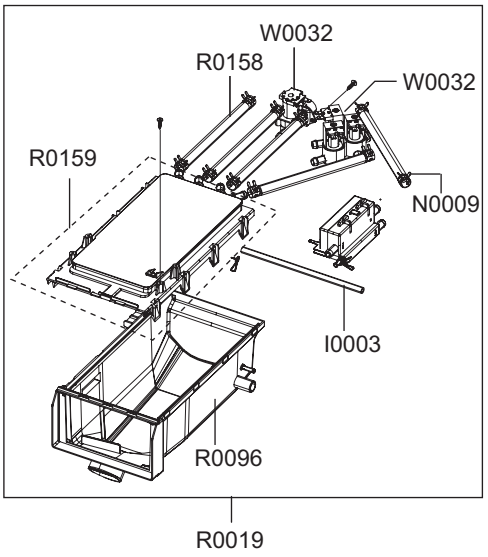
- ▶ Type 1: Enterprise-wide parts
  Type 1 materials can be used for all Samsung Electronics products.
  (Most electrical parts belong to this type.)
- ▶ Type 2: Division-wide parts (DC** - Washing machine)
  Type 2 materials can be used for specific products.
  (Most instruments and tools belong to this type.)

2. Ass'y Materials
   : All ass'y material codes start with DC9*.
   An ass'y material is created by combining more than two materials. If a requested material cannot be provided, you can request an ass'y material that contains that material.

7-2. THE CONTROL PARTS (WF317AAW/XAA)

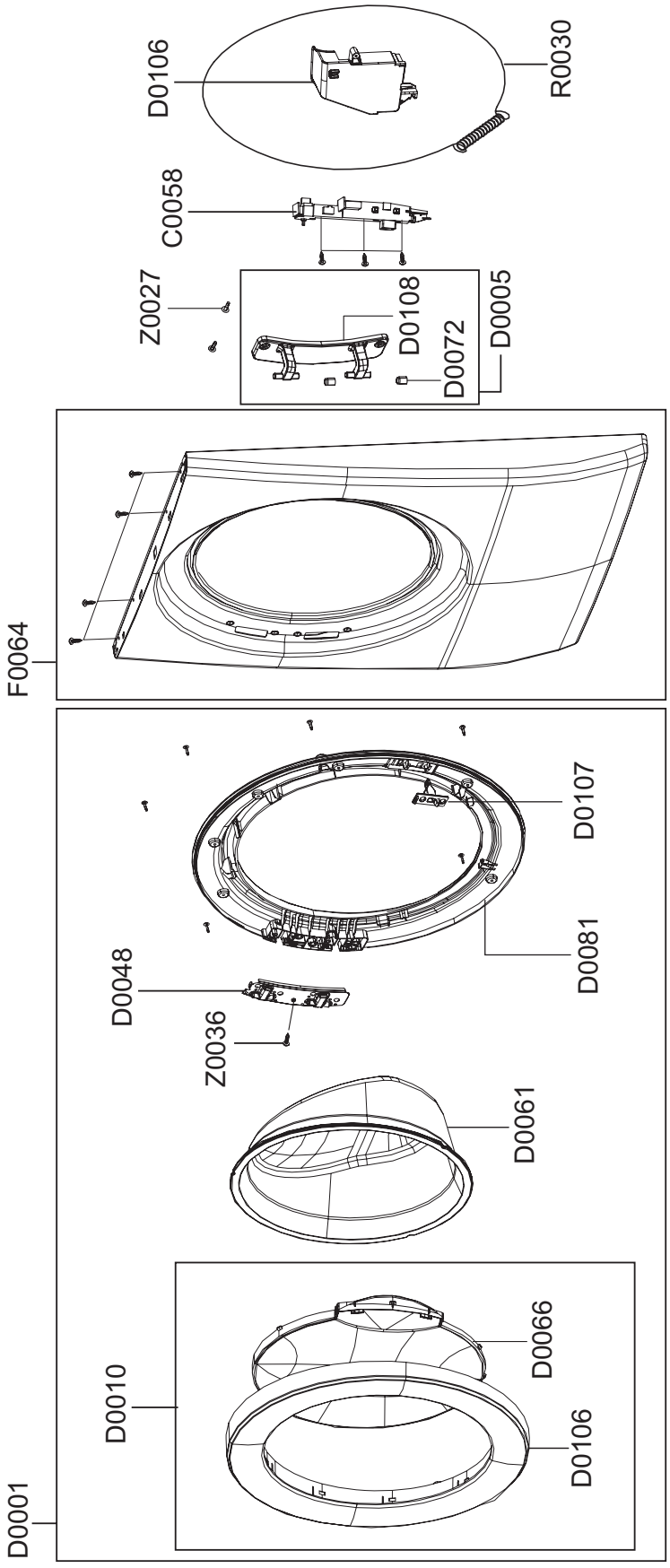






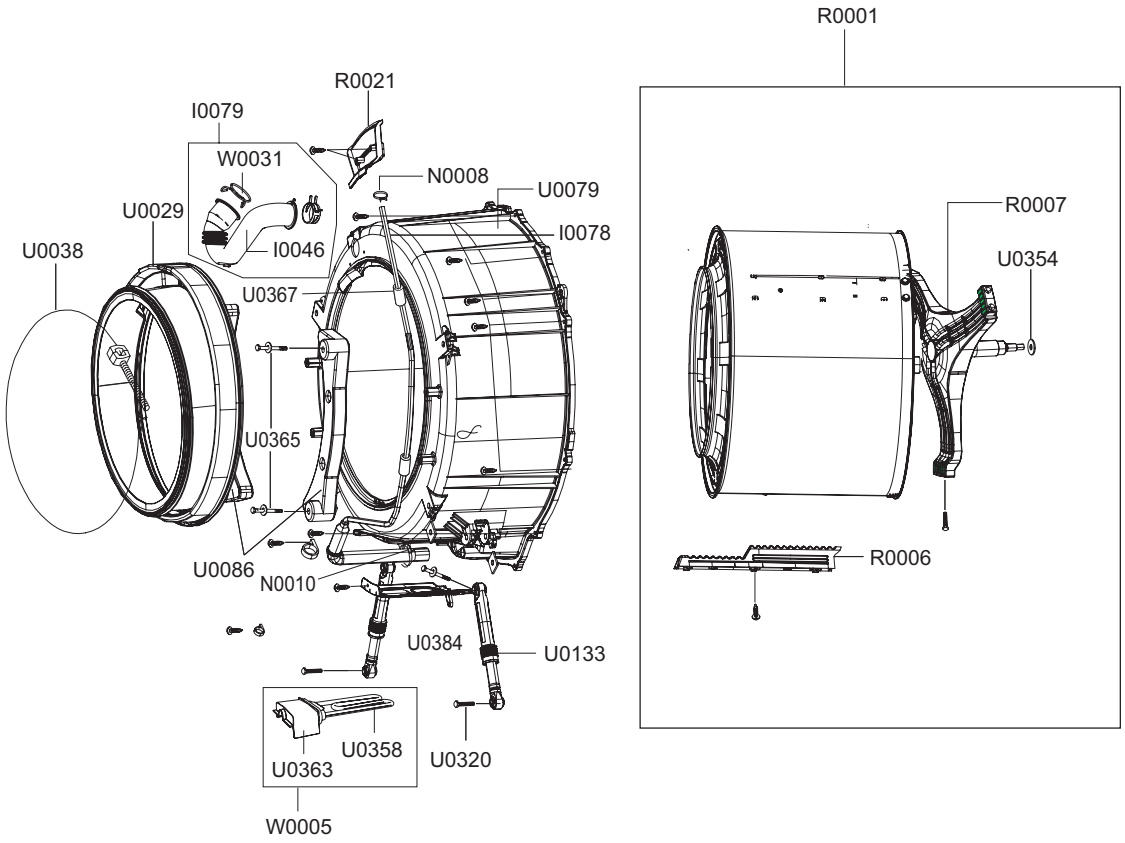
Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
C0002	DC97-10513R	ASSY-S.PANEL CONTROL	WF317AAW/XAA,NEAT-W	PC	1	SNA
C0029	DC97-10511A	ASSY-KNOB ENCODER	FRONTIER,LOWES	PC	1	SA
C0044	DC64-01105A	BUTTON-PUSH(P)	WF326LAW,ABS,-,-,WHT,FRON	PC	1	SA
C0105	DC64-01108A	BUTTON-ENCODER	WF326LAW,ABS,-,-,WHT,FRON	PC	1	SA
C0108	DC66-00413A	LEVER-POWER	GW-PJT,POM,-,-,-,-,NTR,ENTRY	PC	1	SA
I0003	DC67-00089F	HOSE-WATER	WF326LAW,EPDM,ID5,OD9,T2,L190	PC	1	SA
J0028	DC61-01267A	CASE-PRE WASH	WINGS-PJT,PP(TB53),-,-,-,W	PC	1	SC
N0009	DC65-00008A	CLAMPER HOSE	SEW-DR605,SK5,-,-,YEL,ID14.	PC	10	SA
R0014	DC97-10336A	ASSY-DRAWER	WF316LAW,NEAT-WHT	PC	1	SA
R0019	DC97-07125M	ASSY-HOUSING DRAWER	WF337AAW,MAIN/HOT/BL	PC	1	SA
R0025	DC97-10960A	ASSY-PANEL DRAWER	WF316LAW,FRONTIER	PC	1	SA
R0036	DC61-01170A	BODY-DRAWER	GW-PJT,PP(TB-53),-,-,-,-,WHT	PC	1	SNA
R0085	DC61-01171A	GUIDE-LIQUID	GW-PJT,ABS,-,-,-,WHT,-	PC	1	SA
R0096	DC61-01167D	HOUSING-DRAWER(L)	WF337AAW,PP(TB-53),-,-	PC	1	SA
R0155	DC64-01113A	HANDLE-DRAWER	WF326LAW,ABS,-,-,-,-,WHT,F	PC	1	SNA
R0157	DC67-00121B	CAP-RINSE	MAH9700,PP(TB53),-,-,-,MUNSELL	PC	1	SA
R0158	DC67-00051B	HOSE-DRAWER	Q1636GW/XEU,EPDM,ID9.0,OD14.	M	1.48	SA
R0159	DC97-08800A	ASSY-S.HOUSING DRAWER	MAH9700AWW,-	PC	1	SA
R0160	DC97-08774A	ASSY-S.DRAWER	MAH9700AWW,-	PC	1	SA
R0173	DC63-00516A	COVER-DETERGENT	GW-PJT,PP(TB-53),-,-,-,-	PC	1	SNA
W0032	DC62-00142G	VALVE-WATER	V-0119,NYLON #6,123x55x55,1~	PC	1	SA
W0032	DC62-30314K	VALVE-WATER	V-0117,NYLON #6,83x45,1~8(10	PC	1	SA
Y0162	MFS-F2WLHA-S0	ASSY PCB PARTS(S)	MFS-F2WLHA-S0	PC	1	SA
Y0170	MFS-WF317-T0	ASSY-PCB PARTS	FRONTIER PJT	PC	1	SA
Y0171	MFS-WF317-00	ASSY-PCB PARTS(M)	FRONTIER PJT	PC	1	SA

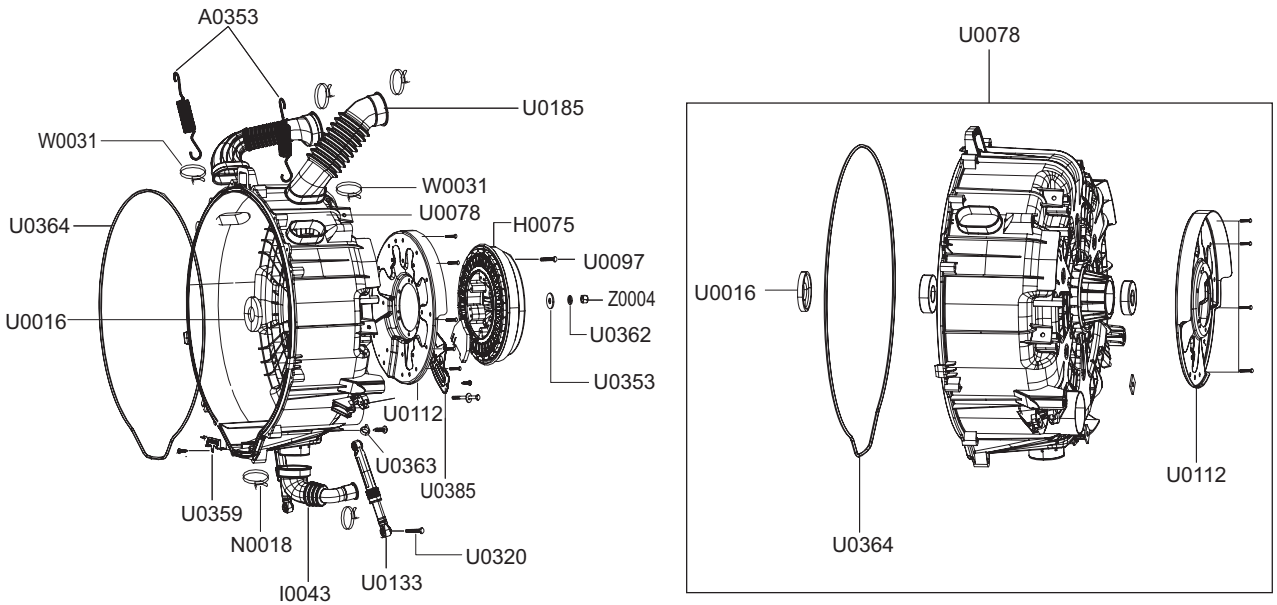
7-3. THE DOOR PARTS (WF317AAW/XAA)



Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
C0058	DC64-00519B	DOOR-LOCK S/W	GW-PJT,PP-GF,-,-,-,-,BLK,1	PC	1	SA
D0001	DC97-10671D	ASSY-DOOR	WF317AAW,AG+ PRINT/POM LEVER	PC	1	SA
D0005	DC97-10718A	ASSY-HINGE DOOR	FRONTIER-PJT,SINGLE	PC	1	SA
D0010	DC97-10338C	ASSY-COVER DOOR	WF317AAG/XAA,SILVER CARE	PC	1	SA
D0048	DC61-01222A	BRACKET-HINGE	27-DRYER,HGI,T2.0,-,-,-,-	PC	1	SA
D0061	DC64-00504B	DOOR-GLASS	SEW-HW125,SODALIME,-,-,-,-,-,	PC	1	SC
D0066	DC64-01120A	DOOR-SAFETY	WF326LAW,PET,T2.8,-,-,-,NTR,	PC	1	SA
D0072	DC61-00891A	GUIDE-HINGE	HAUZEN(DOM),POM,-,-,-,WHT,HI	PC	4	SA
D0081	DC61-01520A	HOLDER-GLASS	WF326LAW,PP(TB53),T2.8,-,-,	PC	1	SA
D0106	DC63-00673A	COVER-DOOR	WF316LAW,ABS,T2.8,-,-,-,-,CR-	PC	1	SNA
D0106	DC63-00693A	COVER-DOOR SWITCH	FRONTIER,PP(V0),-,-,-,	PC	1	SA
D0107	DC66-00326A	LEVER-DOOR	TS85-PJT,POM,-,W24,L54,-,WHT,	PC	1	SA
D0108	DC61-01532A	HINGE-DOOR	WF326LAW,ZNDC,T3.8,-,-,-,-,FR	PC	1	SA
F0064	DC97-10340A	ASSY-FRAME FRONT	WF316LAW,NEAT-WHT/FRONT	PC	1	SA
R0030	DC97-04973B	ASSY-WIRE DIAPHRAGM	SEW-HFR1637AR,STS304	PC	1	SNA
Z0027	6001-001773	SCREW-MACHINE	TH,+,-,M5,L12,PASS,STS430,	PC	2	SA
Z0036	6001-001668	SCREW-MACHINE	TH,+,M5,L16,PASS,STS430,FP	PC	1	SA

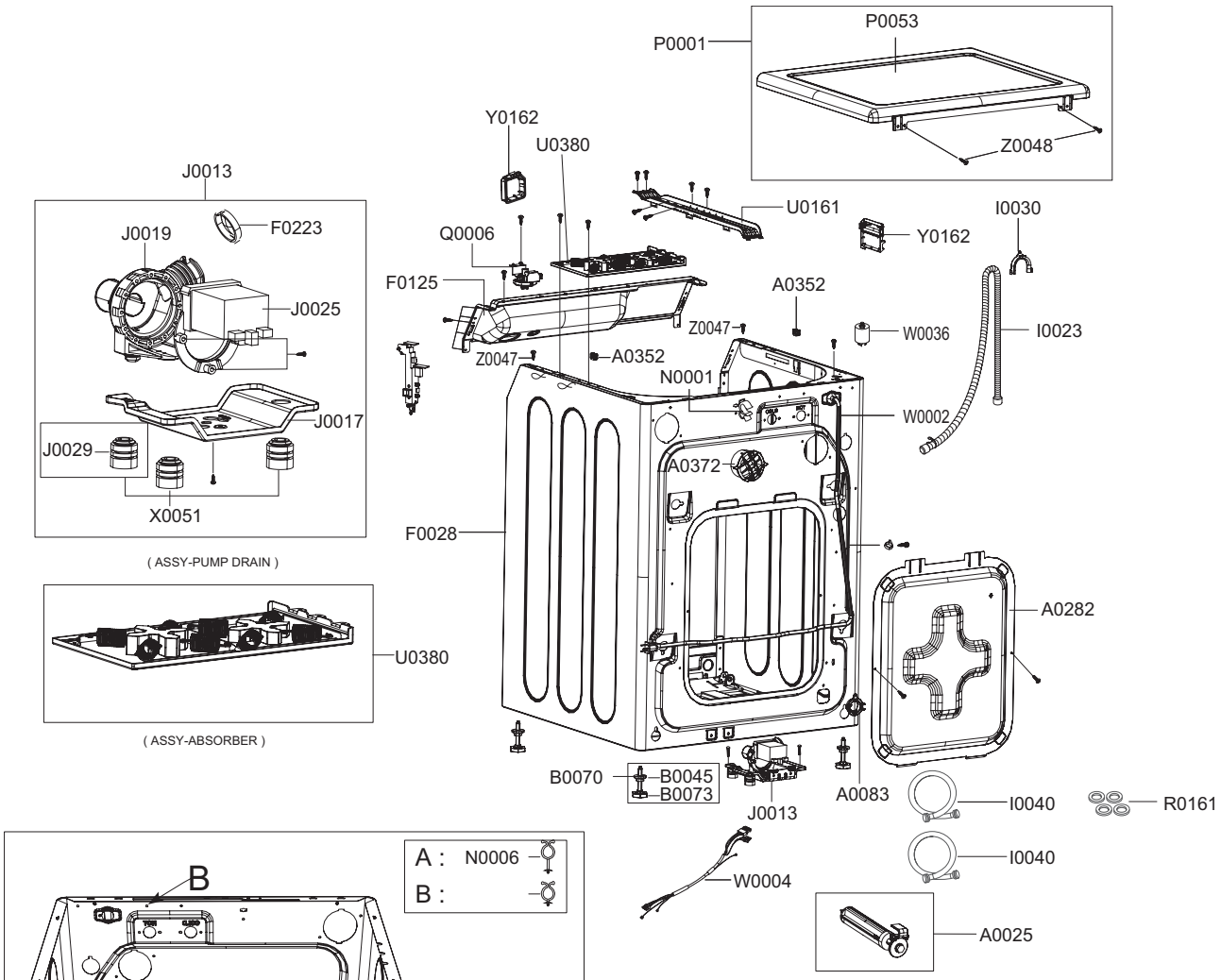
7-4. THE TUB PARTS (WF317AAW/XAA)

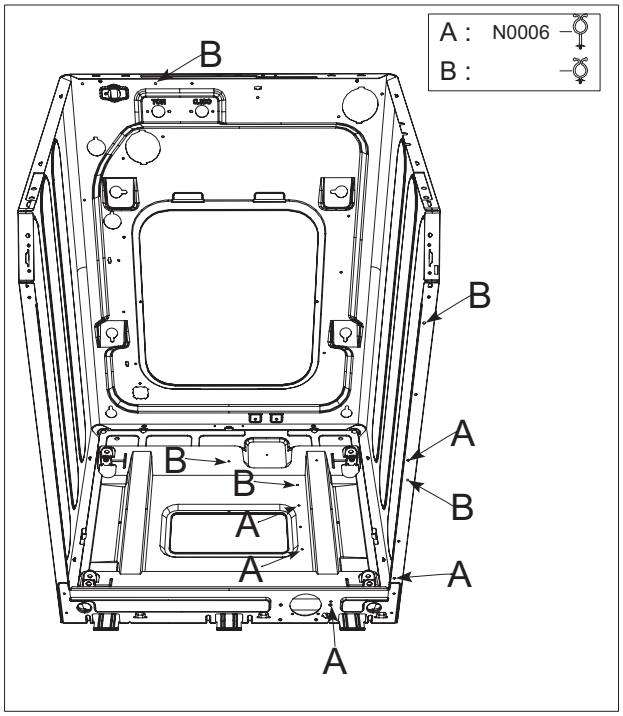




Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
A0353	DC61-01257B	SPRING ETC-HANGER	Frontier,SWC,4.2,21.6,	PC	2	SA
H0075	DC31-00049A	MOTOR BLDC-DRUM	POM1300,0~1200,-,DC310V,	PC	1	SA
I0043	DC67-00126A	HOSE-DRAIN	GW-PJT,EPDM,OD 68,-,T2.0,-,BL	PC	1	SA
I0046	DC67-00265A	HOSE-DRAWER TUB	MACH,EPDM,-,-,-,-,BLK,-	PC	1	SA
I0078	DC67-00124A	HOSE-PRESSURE	GW-PJT,EPDM,-,-,-,-,BLK,-	PC	1	SA
I0079	DC97-12748A	ASSY-HOSE DRAWER TUB	SEW-HFR167AR,MACH-P	PC	1	SA
N0008	DC61-70029C	SPRING-CLIP	SEW-HW125,HSWR67,CD1.2,ID8.5	PC	1	SA
N0010	DC65-00009A	CLAMPER HOSE	TS85-PJT,HSWR,-,-,YEL,OD24/	PC	1	SA
N0018	DC65-00014A	CLAMPER HOSE	GW-PJT,HSWR,-,ID82,ZPC2,HOS	PC	1	SA
R0001	DC97-10337A	ASSY-DRUM	WF326LAW,FRONTIER	PC	1	SA
R0006	DC66-00434A	DRUM-LIFTER	WF326LAW,PP(TI42),-,-,L314,G	PC	3	SA
R0007	DC97-06986A	ASSY-FLANGE SHAFT	GW-PJT,ALDC+SM45C/DD-T	PC	1	SA
R0021	DC97-12747A	ASSY-GUIDE WATER	WF337LAW,FRONTIER II	PC	1	SNA
U0016	DC62-00156A	SEAL-OIL	TS85-PJT,NBR(SD45.5),BLK,-,-,-	PC	1	SA
U0029	DC64-00802A	DOOR-DIAPHRAGM	GW-PJT,EPDM,T1.5,-,-,-,GR	PC	1	SA
U0038	DC97-04981D	ASSY-CLAMP DIAPHGRAM	WINGS-PJT,HSWR/ZPC4	PC	1	SA
U0078	DC97-08649D	ASSY-SEMI TUB BACK	WF-G126AW,FRONTIER/VE	PC	1	SNA
U0079	DC97-08650F	ASSY-SEMI TUB FRONT	WF337AAW,15%/HEATER/	PC	1	SA
U0086	DC67-00139A	WEIGHT-BALANCER(F)	GW-PJT,GC,-,-,-,RED,F	PC	2	SA
U0097	6011-001548	BOLT-ETC	M7.5,L30,ZPC(YEL),SWRCH18A,HEX	PC	20	SA
U0112	DC61-01338B	BRACKET-HOUSING BEARING	DR130,SBHG1-A(GI	PC	1	SA
U0133	DC66-00343E	DAMPER-SHOCK	GW-PJT,STEEL+PP+RUBBER,40N,	PC	2	SA
U0133	DC66-00343C	DAMPER-SHOCK	GW-PJT,-,-,-,-,-,-,60N	PC	2	SA
U0185	DC67-00155A	HOSE-O.F(I)	WINGS-PJT,EPDM,-,-,T2.0,-,BL	PC	1	SA
U0320	DC60-40141A	BOLT-HEX	SM10C/DAMPER,HEX,M8,L66,-,ZPC2	PC	2	SA
U0320	DC60-40141A	BOLT-HEX	SM10C/DAMPER,HEX,M8,L66,-,ZPC2	PC	2	SA
U0353	DC60-60044A	WASHER-PLAIN	-,ID10.5,OD30,T3,-,STS304	PC	1	SA
U0354	6031-001523	WASHER-WAVE	SK5,-,ID35,OD45,T0.6,ZPC2,-	PC	1	SA
U0358	DC47-00006G	HEATER	-,GW-PJT,STS316L,900W,7.18~7.8	PC	1	SA
U0359	DC61-01482A	BRACKET-HEATER	GW-PJT,STS430/304,T0.5,W9	PC	1	SA
U0362	DC60-60049A	WASHER-SPRING	-,ID10.5,OD18,T2.5,-,SIR	PC	1	SA
U0363	DC65-20008C	CABLE CLAMP	DA-8N,NYLON#66,-,-,NTR,ID13.	PC	2	SA
U0363	DC65-20008C	CABLE CLAMP	DA-8N,NYLON#66,-,-,NTR,ID13.	PC	1	SA
U0363	DC63-00820A	COVER-HEATER	WF337AAW,PP(V0),-,-,-,-,-,-	PC	1	SA
U0364	DC69-00804A	PACKING-TUB	GW-PJT,EPDM-FORM,-,PI8,W624,	PC	1	SA
U0365	DC97-02412A	ASSY-BOLT	SWF-P12,MOTOR, M8*L62	PC	4	SA
U0367	DC63-10003E	SPONGE-HOSE AIR	GW-PJT,HB22-GREY,-,T130,	PC	1	SA
U0367	DC63-10003C	SPONGE-HOSE AIR	POL,GRY,SWF-P12,HB22-GRE	PC	1	SA
U0384	DC61-01414A	BRACKET-TUB(F)	WINGS-PJT,SBHG1-A,T0.4,-,	PC	1	SA
U0385	DC61-01431B	BRACKET-TUB(B)	WINGS-PJT,SBHG1-A,T0.4,-,	PC	1	SA
W0005	DC96-01417A	ASSY-HEATER	WF337AAW,COVER-HEATER +HEATE	PC	1	SA
W0031	DC72-00001D	BAND-RING	WINGS-PJT,HSWR,T2.4,-,-,YEL,ID	PC	1	SA
W0031	DC72-00055A	BAND-RING	27" Washer,HSWR,#2/ M4x35,-,-,	PC	1	SA
W0031	DC72-00001E	BAND-RING	SEW-HTR122L,HSWR,#3.5,-,ID #49	PC	1	SNA
Z0004	DC60-50148B	NUT-HEX	SM20C(NYLON),M12,-,-,ZPC3(YEL)	PC	1	SA

7-5. THE FRAME PARTS (WF317AAW/XAA)





Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
A0025	DC97-07448B	ASSY-FIXER TUB	WF337AAW,YELLOW	PC	4	SNA
A0083	DC61-00274A	GUIDE-HOSE	P/PV/M,PP,-,-,-,WHT,FRAME/DRA	PC	1	SA
A0282	DC63-00522A	COVER-BACK	GW-PJT,GI,T0.4,W426,L507,-,-,	PC	1	SA
A0352	DC61-01548A	GUIDE-SPRING	GW-PJT,POM,-,-,-,NTR,-	PC	2	SA
A0372	DC97-08740D	ASSY-CAP O.F	WF337AAW,FRONTIER2	PC	1	SA
B0045	DC61-01652A	LEG-RING	K4-PJT,Nylon66+GF30,NON,SIL,L1	PC	1	SNA
B0070	DC97-12560A	ASSY-LEG	WF206LNW,MARS-PJT	PC	4	SA
B0073	DC61-01747A	LEG-RUBBER	MARS,BUTYL+SWRCH10A,-,GRY+YEL	PC	1	SA
F0028	DC97-06995J	ASSY-FRAME	WF327LAW,FRONTIER II	PC	1	SNA
F0125	DC61-01166A	FRAME-PLATE(U)	GW-PJT,EGI,-,-,-,T1.6,-,-	PC	1	SA
F0223	DC62-00202A	VALVE-CHECK	WINGS,EPDM,PO30,1~10BAR,BLK,	PC	1	SA
I0023	DC97-12534B	ASSY-HOSE DRAIN(I)	WF337AAW,L1920/BLOW-S	PC	1	SA
I0030	DC62-10278A	HOSE-HANGER	-,PP(JS20),-,-,-,-,NTR,-	PC	1	SA
I0040	DC62-00075A	HOSE-WATER(H)	-,NBR+NYLON,ID10.2,OD16.5,	PC	1	SA
I0040	DC62-00075B	HOSE-WATER(C)	-,NBR+NYLON,ID10.2,OD16.5,	PC	1	SC
J0013	DC96-01414A	ASSY-PUMP DRAIN	WF337AAW,FRONTIER II	PC	1	SA
J0017	DC61-01853A	BRACKET-PUMP	WF337AAW,SGCC(GI),T1.2,-,-,	PC	1	SA
J0019	DC61-01871A	CASE-PUMP	WF337AAW,PP(5113MF6),-,-,-,WHT	PC	1	SNA
J0025	DC31-00054A	PUMP-DRAIN	-,120V,60Hz,40mm,80W/3600RPM	PC	1	SNA
J0029	DC63-00766A	CUSHION-PUMP	WF206LNW,EPDM,-,-,-,-,MARS-	PC	1	SA
N0001	DC61-00133A	CLAMPER HOSE	P1291,PP(BJ-730),ID24.5,OD2	PC	1	SNA
N0006	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	PC	4	SA
N0006	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	PC	4	SA
P0001	DC97-12878B	ASSY-COVER TOP	WF317,NEAT-WHT	PC	1	SNA
P0053	DC63-00523G	COVER-TOP	WF206LNW,SECC(EGI),T0.8,-,-,-,	PC	1	SNA
Q0006	DC97-03716C	ASSY-SENSOR PRESSURE	SEW-3HW123,DN-S14T/	PC	1	SA
R0161	DC62-40178A	SEAL-WATER	-,NR,BLK,-,-,-,ID12XOD25XT3	PC	4	SA
U0161	DC61-01200B	GUIDE-WIRE	WF206LNW,SGCC(GI),T0.8,-,-,-,	PC	1	SA
U0380	DC97-08635H	ASSY-ABSORBER	WF316,WEIGHT 390g+305g(SCP	PC	1	SA
W0002	DC96-00757A	ASSY POWER CORD	GW-PJT,GW,UL/CSA,3/16AWG	PC	1	SA
W0004	DC96-01043F	ASSY-M.WIRE HARNESS	FRONTIER MC,AG KIT/	PC	1	SA
W0036	DC29-00013A	FILTER-EMI	LFT-215G,WINGS_PJT,250VAC,15A	PC	1	SA
X0051	DC99-00815A	ASSY-CUSHION PUMP	WF206LNW,MARS-PJT	PC	3	SA
Y0162	MES-AG3MOD-S2	ASSY PCB PARTS(S)	MES-AG3MOD-S2	PC	1	SA
Y0162	MFS-MEMS-00	ASSY PCB PARTS(S)	MES-MEMS-00	PC	1	SA
Z0047	6009-001458	SCREW-SPECIAL	CH,+,-,M4,L10,ZPC3(BLK),SW	PC	2	SA
Z0048	6009-001476	SCREW-HEX	HEX,+,-,M5,L10,ZPC3(BLK),SWRCH	PC	2	SA

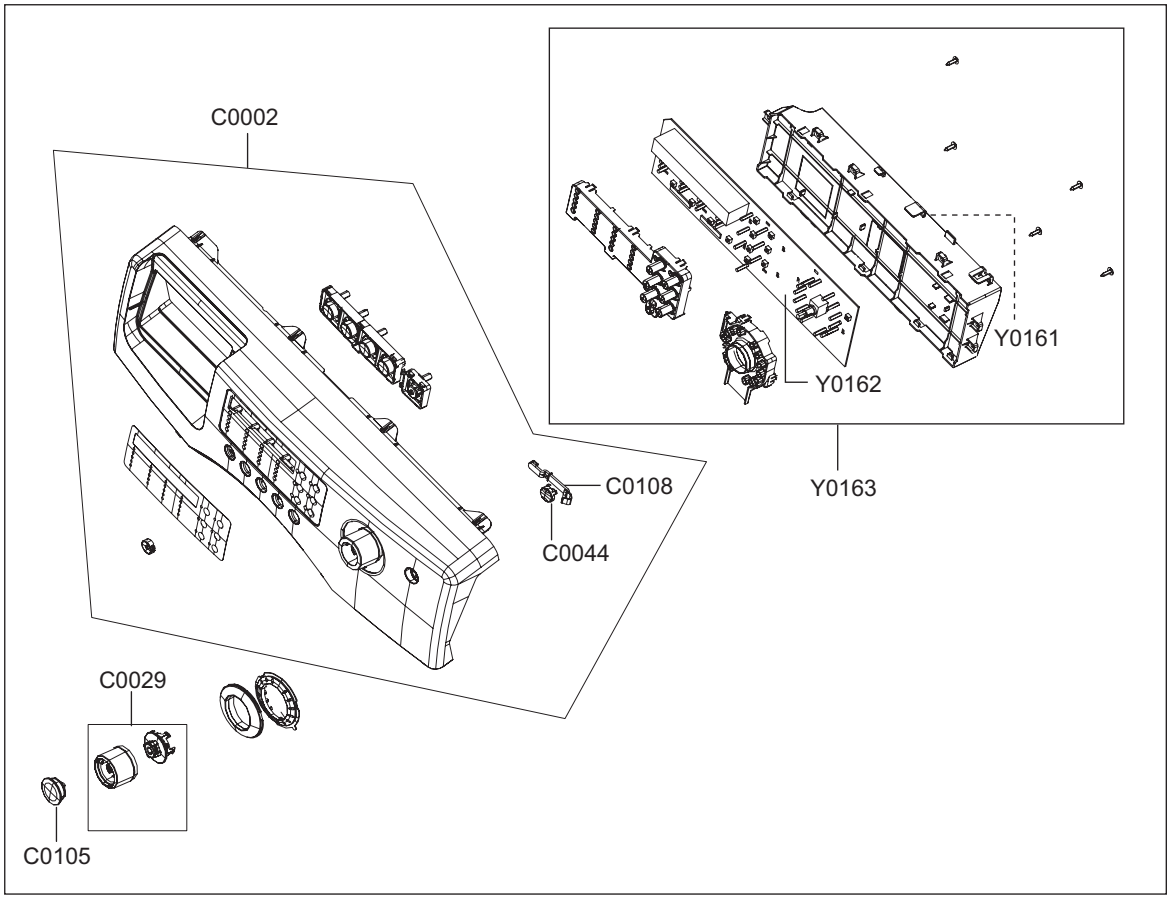
7-6. PARTS LIST (SA/SC others) (WF317AAW/XAA)

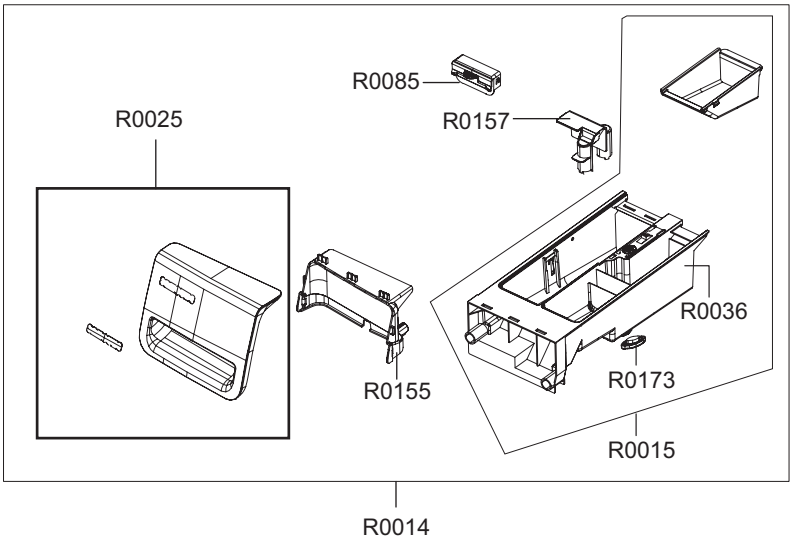
Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
A0028	DC61-01586B	BRACKET-FIXER(L)	WF206LNW,SGCC(GI),T1.0,	PC	1	SA
A0028	DC61-01723A	BRACKET-FIXER(O/L)	WF206LNW,SGCC(GI),T2.	PC	2	SA
A0029	DC61-01587B	BRACKET-FIXER(R)	WF206LNW,SGCC(GI),T1.0,	PC	1	SA
A0034	DC60-40146A	BOLT-SPANER	-,HR,-,T2.3,OD36,-,BLK,-,-	PC	1	SA
A0043	DC61-10688A	CAP-FIXER	SWF-P12,PP(TB53),-,-,-,WHT,-,	PC	4	SA
A0043	DC61-10688B	CAP-FIXER	SEW-HFR167AR,PP(TB53),T1.5,-,-	PC	2	SA
A0055	DC61-01679A	CLIP-HOSE	SEW-HFR177AR,SK5,T1.6,NTR,ID37	PC	1	SA
A0125	6046-000310	STAND OFF	ID11.5,L2,NTR,NYLON66,DAWH-3NA	PC	4	SA
A0363	DC61-70029D	SPRING ETC-CLIP	WF337,HSWR67,CD1.6,ID8.5	PC	1	SA
B0027	DC97-12492A	ASSY-WEIGHT	WF316,WEIGHT 390g(SCP1)	PC	1	SA
B0027	DC97-12493A	ASSY-WEIGHT	WF316,WEIGHT 305g(SCP1)	PC	1	SA
D0105	DC61-01576A	SUPPORT-HINGE	FRONTIER-PJT,STS430,T1.2,-	PC	1	SA
D0111	DC72-00034B	SPONGE-EPDM	MAH2400,EPDM,-,T1,W15,L500,W	PC	3	SA
I0044	DC97-08633D	ASSY-HOSE PRESSURE	WF316LAW,HEATER/FRONT	PC	1	SA
I0045	DC67-00057A	HOSE-AIR	TS85-PJT,EPDM,-,-,-,-,BLK,-	PC	1	SA
J0020	DC63-00810A	COVER-PUMP	WF337AAW,PP(FH-44N),-,-,-,-,-	PC	1	SA
M0047	DC61-01736B	HOLDER-WIRE	WF337AAW,NYLON66,OD31,H15,L1	PC	1	SA
N0008	DC61-70029C	SPRING-CLIP	SEW-HW125,HSWR67,CD1.2,ID8.5	PC	1	SA
P0025	DC61-01839A	BRACKET-COVER TOP	WF337AAW,SGCC(GI),T1.6	PC	1	SA
P0025	DC61-01839A	BRACKET-COVER TOP	WF337AAW,SGCC(GI),T1.6	PC	1	SA
R0021	DC97-10417A	ASSY-GUIDE WATER	WF326LAW,FRONTIER	PC	1	SA
U0069	DC97-08632C	ASSY-GUIDE WIRE	WF206LNW,MARS-PJT/T0.8	PC	1	SA
U0320	DC60-40137A	BOLT-HEX	MARS-PJT,STS304,M8,-,P1.25,L30	PC	6	SA
U0320	6011-001565	BOLT-HEX	M6,L35.1,ZPC(YEL),SWCH25K,TAPP	PC	3	SA
U0353	DC60-60044A	WASHER-PLAIN	-,ID10.5,OD30,T3,-,STS304	PC	2	SA
U0353	DC60-60044A	WASHER-PLAIN	-,ID10.5,OD30,T3,-,STS304	PC	2	SA
U0353	6031-001531	WASHER-PLAIN	SCP1,-,ID7,OD14,T0.8,ZPC2(Y	PC	1	SA
U0363	6502-000127	CABLE CLAMP	DAWH-18NB,ID15,-,NYLON66,NTR	PC	3	SA
U0363	6502-000127	CABLE CLAMP	DAWH-18NB,ID15,-,NYLON66,NTR	PC	5	SA
U0379	DC67-00252A	WEIGHT-ABSORBER	WF316,SHP1(PO##),4mm,#70	PC	1	SA
U0379	DC67-00253A	WEIGHT-ABSORBER	WF316,SHP1(PO##),4mm,#70	PC	4	SA
U0379	DC67-00255A	WEIGHT-ABSORBER	WF316,SHP1(PO##),1mm,#70	PC	2	SA
U0379	DC67-00252A	WEIGHT-ABSORBER	WF316,SHP1(PO##),4mm,#70	PC	1	SA
U0379	DC67-00253A	WEIGHT-ABSORBER	WF316,SHP1(PO##),4mm,#70	PC	2	SA
U0379	DC67-00255A	WEIGHT-ABSORBER	WF316,SHP1(PO##),1mm,#70	PC	5	SA
U0382	DC61-01820A	FIXER-WEIGHT ABSORBER	WF316,SM10C,L25/D6	PC	5	SA
U0382	DC61-01821A	FIXER-WEIGHT ABSORBER	WF316,SM10C,L20/ D	PC	5	SA
U0395	DC97-12814A	ASSY-BRACKET SPRING(R)	WF337AAW,FRONTIER	PC	1	SA
U0396	DC97-12813A	ASSY-BRACKET SPRING(L)	WF337AAW,FRONTIER	PC	1	SA
W0030	DC62-10022X	HOSE-PUMP	FRONTIER,PP,ID20.6,OD27,-,L192	PC	1	SA
W0059	DC63-10002D	SPONGE-HARNESS	-,PU-FOAM,-,T10,W100,L80,	PC	4	SA
X0050	DC61-01445A	GUIDE-CUSHION	MAH98700AWW,PP,T2.8,-,-,-	PC	1	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	3	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	12	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	1	SA

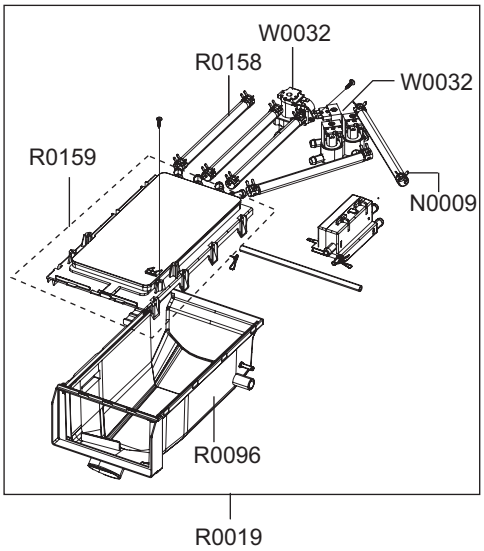
7-6. PARTS LIST (SA/SC others) (WF317AAW/XAA)

Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	3	SA
Z0011	6002-001277	SCREW-TAPPING	HEX,+,-,2,M6.5,L40,ZPC(WHT	PC	12	SA
Z0013	6002-001279	SCREW-TAPPING	PWH,+,-,1,M4,L12,PASS,STS4	PC	2	SA
Z0038	6002-000241	SCREW-TAPPING	TH,+,-,2S,M5,L12,ZPC(WHT),	PC	1	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	6	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	1	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	2	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	2	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	15	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	4	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	4	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	3	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	1	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	7	SA
Z0062	6002-000630	SCREW-TAPPING	PH,+,-,2S,M3,L8,ZPC(WHT),S	PC	1	SA
Z0064	DC97-14006A	ASSY-SCREW	WF203,SCREW-TAPPING(M4+L16,TH	PC	2	SA
Z0065	6003-001563	SCREW-TAPTITE	TH,+,-,S,M4,L8,ZPC3(BLK),S	PC	2	SA
Z0065	6003-001563	SCREW-TAPTITE	TH,+,-,S,M4,L8,ZPC3(BLK),S	PC	1	SA
Z0065	6003-001563	SCREW-TAPTITE	TH,+,-,S,M4,L8,ZPC3(BLK),S	PC	4	SA

7-7. THE CONTROL PARTS (WF206BNW/XAA)

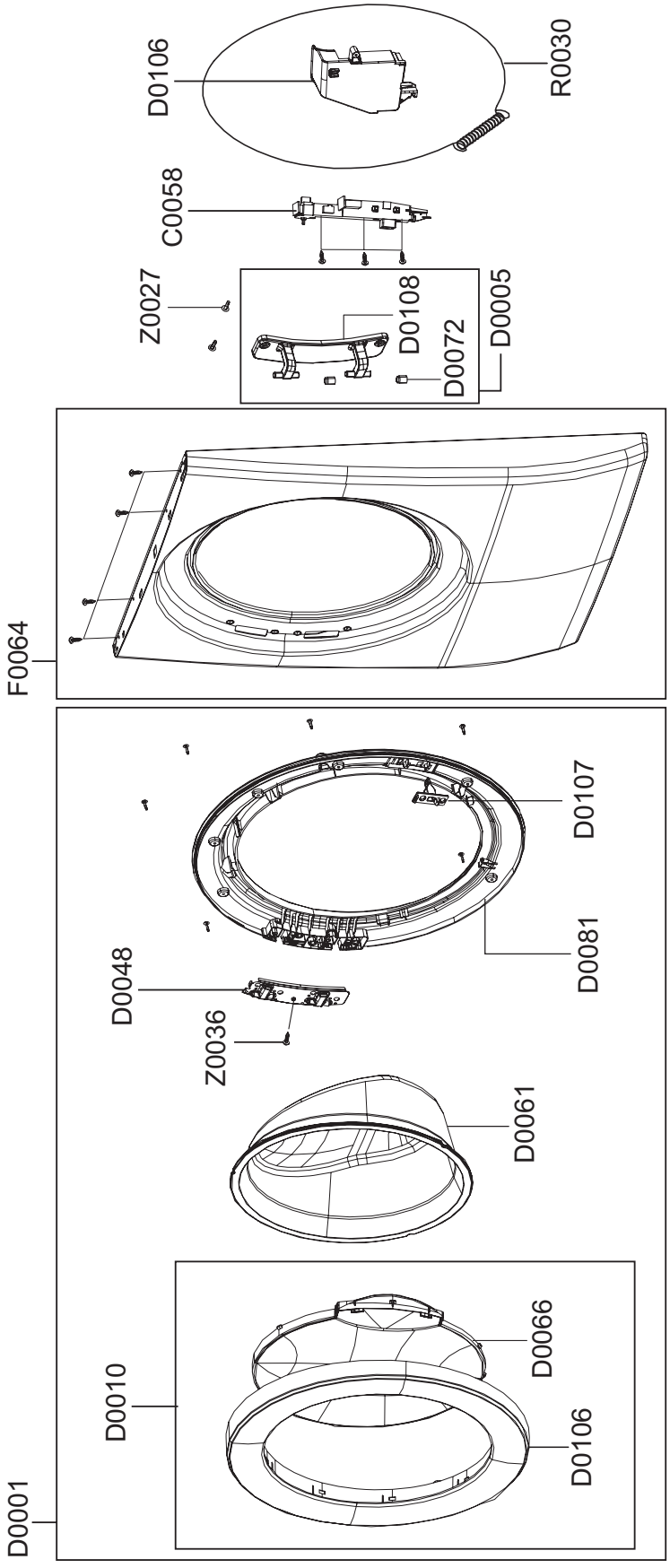






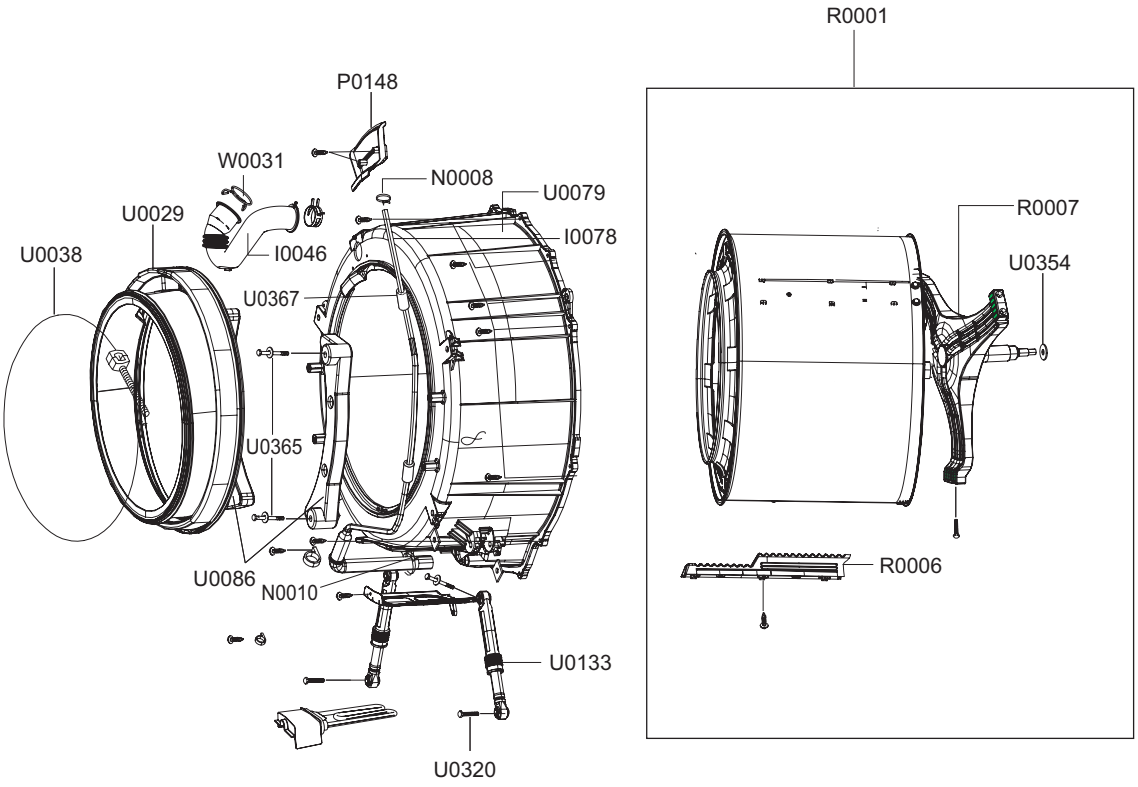
Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
C0002	DC97-12075B	ASSY-S.PANEL CONTROL	WF206BNW,MARS-PJT	PC	1	SA
C0029	DC97-10526A	ASSY-KNOB ENCODER	WF316BAW,BBY/CR-COATIN	PC	1	SA
C0044	DC64-01105A	BUTTON-PUSH(P)	WF326LAW,ABS,-,-,WHT,FRON	PC	1	SA
C0105	DC64-01132B	BUTTON-ENCODER	DV306BEW(SECA),ABS,-,-,WH	PC	1	SA
C0108	DC66-00413A	LEVER-POWER	GW-PJT,POM,-,-,-,-,NTR,ENTRY	PC	1	SA
N0009	DC65-00008A	CLAMPER HOSE	SEW-DR605,SK5,-,-,YEL,ID14.	PC	6	SA
R0014	DC97-10335D	ASSY-DRAWER	WF306BHW,NEAT-WHT/3-TRAY	PC	1	SA
R0015	DC97-08774B	ASSY-S. DRAWER	WF306LAW,NO-PRE WASH	PC	1	SA
R0019	DC97-07125L	ASSY-HOUSING DRAWER	WF206LNW,MAIN/HOT/BL	PC	1	SA
R0025	DC97-10961A	ASSY-PANEL DRAWER	WF316BAW,FRONTIER	PC	1	SNA
R0036	DC61-01170A	BODY-DRAWER	GW-PJT,PP(TB-53),-,-,-,-,WHT	PC	1	SNA
R0085	DC61-01171A	GUIDE-LIQUID	GW-PJT,ABS,-,-,-,WHT,-	PC	1	SA
R0096	DC61-01167A	HOUSING-DRAWER(L)	GW-PJT,PP(FH44N),-,-,-	PC	1	SA
R0155	DC64-01113A	HANDLE-DRAWER	WF326LAW,ABS,-,-,-,-,WHT,F	PC	1	SNA
R0157	DC67-00121B	CAP-RINSE	MAH9700,PP(TB53),-,-,-,MUNSELL	PC	1	SA
R0158	DC67-00051B	HOSE-DRAWER	Q1636GW/XEU,EPDM,ID9.0,OD14.	M	0.92	SA
R0159	DC97-08800A	ASSY-S.HOUSING DRAWER	MAH9700AWW,-	PC	1	SA
R0173	DC63-00516A	COVER-DETERGENT	GW-PJT,PP(TB-53),-,-,-,-	PC	1	SNA
W0032	DC62-30312J	VALVE-WATER	V-1245,NYLON #6,83x45,1~8(V1	PC	1	SA
W0032	DC62-30314K	VALVE-WATER	V-0117,NYLON #6,83x45,1~8(10	PC	1	SA
Y0161	MFS-WF206L-00	ASSY PCB PARTS(M)	MFS-WF206L-00	PC	1	SA
Y0162	MFS-WF206L-S0	ASSY PCB PARTS(S)	MFS-WF206L-S0	PC	1	SA
Y0163	MFS-WF206L-T0	ASSY-PCB PARTS	MFS-WF206L-T0	PC	1	SA

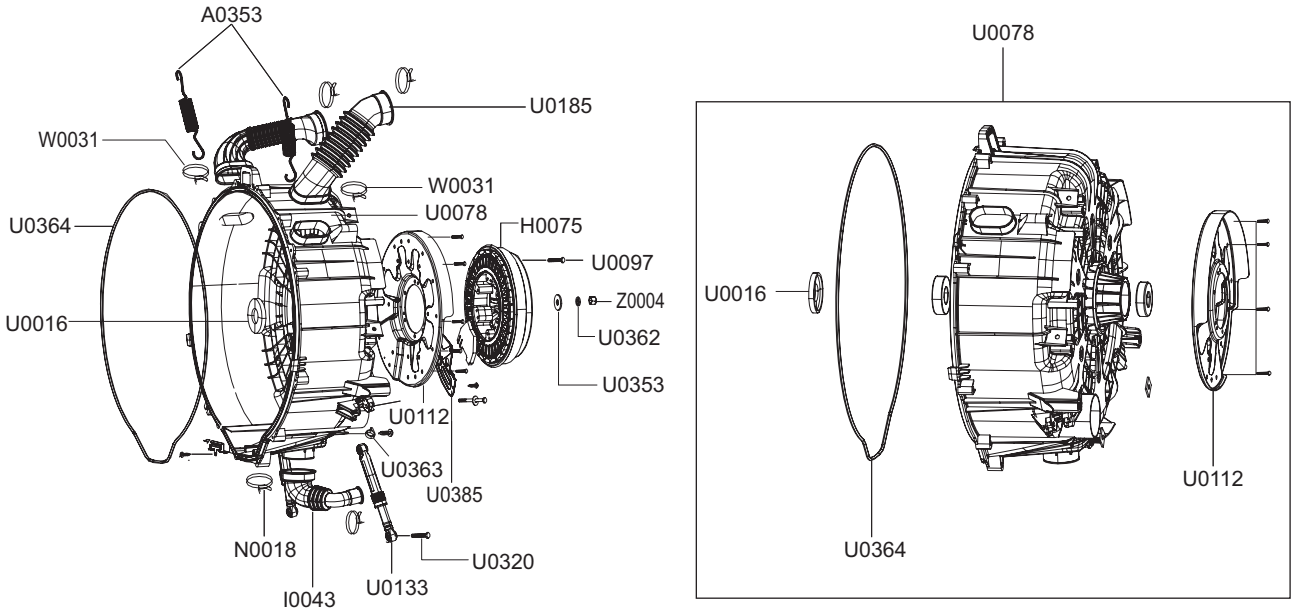
7-8. THE DOOR PARTS (WF206BNW/XAA)



Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
C0058	DC64-00519B	DOOR-LOCK S/W	GW-PJT,PP-GF,-,-,-,-,BLK,1	PC	1	SA
D0001	DC97-10792G	ASSY-DOOR	WF206,-	PC	1	SA
D0005	DC97-10718A	ASSY-HINGE DOOR	FRONTIER-PJT,SINGLE	PC	1	SA
D0010	DC97-10342D	ASSY-COVER DOOR	DV2C6BEW/XAA,MARS-PJT/Cr	PC	1	SA
D0048	DC61-01222A	BRACKET-HINGE	27-DRYER,HGI,T2.0,-,-,-,-	PC	1	SA
D0061	DC64-00504B	DOOR-GLASS	SEW-HW125,SODALIME,-,-,-,-,-,	PC	1	SC
D0066	DC64-01120A	DOOR-SAFETY	WF326LAW,PET,T2.8,-,-,-,NTR,	PC	1	SA
D0072	DC61-00891A	GUIDE-HINGE	HAUZEN(DOM),POM,-,-,-,WHT,HI	PC	4	SA
D0081	DC61-01520A	HOLDER-GLASS	WF326LAW,PP(TB53),T2.8,-,-,	PC	1	SA
D0106	DC63-00674C	COVER-DOOR	DV2C6BEW/XAA,ABS,T2.8,-,-,-,B	PC	1	SNA
D0106	DC63-00693A	COVER-DOOR SWITCH	FRONTIER,PP(V0),-,-,-,	PC	1	SA
D0107	DC66-00326A	LEVER-DOOR	TS85-PJT,POM,-,W24,L54,-,WHT,	PC	1	SA
D0108	DC61-01532A	HINGE-DOOR	WF326LAW,ZNDC,T3.8,-,-,-,-,FR	PC	1	SA
F0064	DC97-10340A	ASSY-FRAME FRONT	WF316LAW,NEAT-WHT/FRONT	PC	1	SA
R0030	DC97-04973A	ASSY-WIRE DIAPHRAGM	TS85-PJT,FRAME-FRONT	PC	1	SA
Z0027	6001-001773	SCREW-MACHINE	TH,+,-,M5,L12,PASS,STS430,	PC	2	SA
Z0036	6001-001668	SCREW-MACHINE	TH,+,M5,L16,PASS,STS430,FP	PC	1	SA

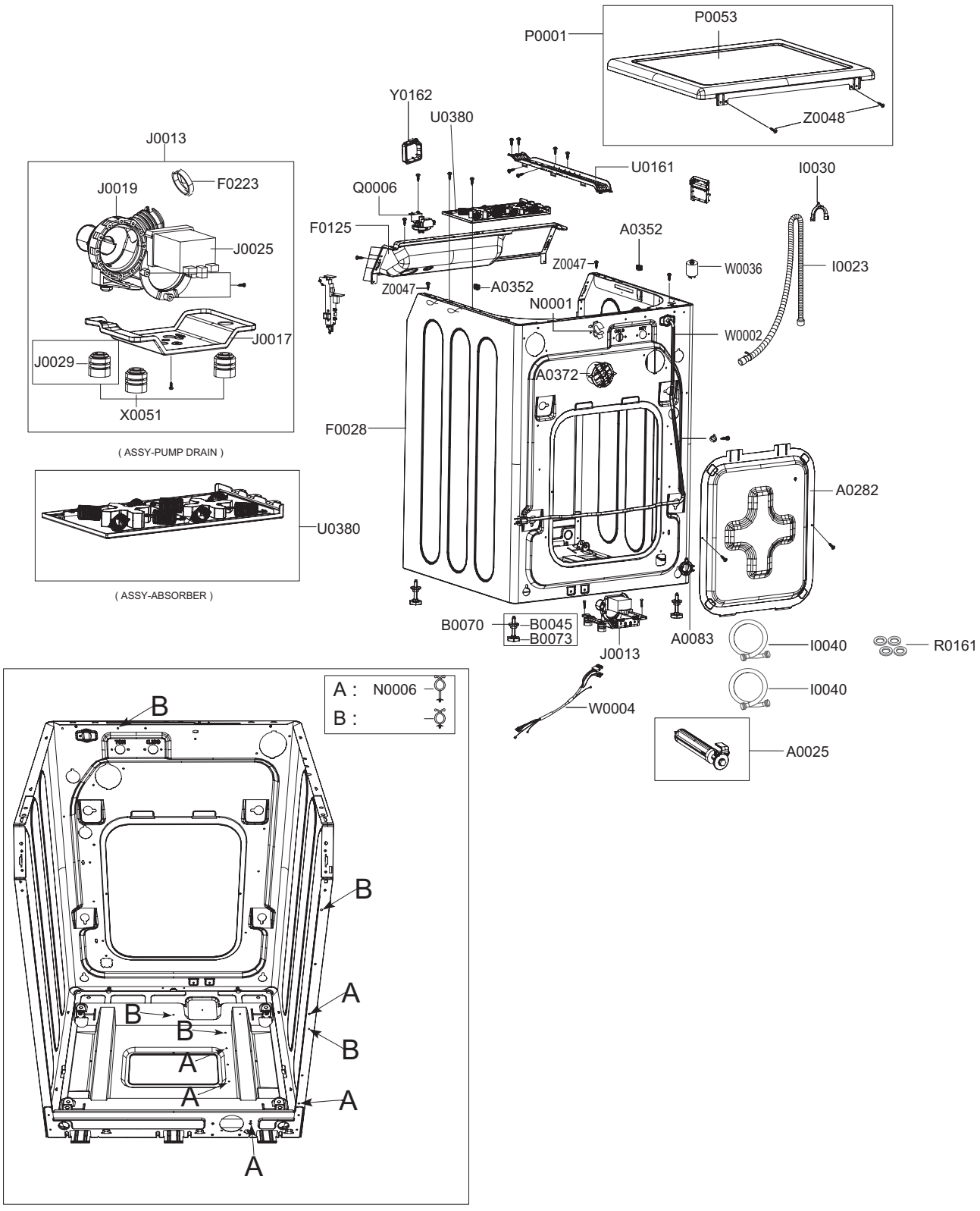
7-9. THE TUB PARTS (WF206BNW/XAA)





Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
A0353	DC61-01257B	SPRING ETC-HANGER	Frontier,SWC,4.2,21.6,	PC	2	SA
H0075	DC31-00049A	MOTOR BLDC-DRUM	POM1300,0~1200,-,DC310V,	PC	1	SA
I0043	DC67-00126A	HOSE-DRAIN	GW-PJT,EPDM,OD 68,-,T2.0,-,BL	PC	1	SA
I0046	DC67-00122A	HOSE-DRAWER TUB	GW-PJT,EPDM,-,-,-,-,BLK,	PC	1	SA
I0078	DC67-00124A	HOSE-PRESSURE	GW-PJT,EPDM,-,-,-,-,BLK,-	PC	1	SA
N0008	DC61-70029C	SPRING-CLIP	SEW-HW125,HSWR67,CD1.2,ID8.5	PC	1	SA
N0010	DC65-00009A	CLAMPER HOSE	TS85-PJT,HSWR,-,-,YEL,OD24/	PC	1	SA
N0018	DC65-00014A	CLAMPER HOSE	GW-PJT,HSWR,-,ID82,ZPC2,HOS	PC	1	SA
P0148	DC61-01172A	GUIDE-WATER	GW-PJT,FRPP(GF15%),T2.5,-,-	PC	1	SA
R0001	DC97-12224A	ASSY-DRUM	WF206LNW,MARS-PJT	PC	1	SA
R0006	DC66-00434A	DRUM-LIFTER	WF326LAW,PP(TI42),-,-,L314,G	PC	3	SA
R0007	DC97-12222A	ASSY-FLANGE SHAFT	WF206LNW,MARS-PJT	PC	1	SA
U0016	DC62-00223A	SEAL-OIL	GW-PJT,EPDM,BLK,-,W77.55,L12,6	PC	1	SA
U0029	DC64-00802A	DOOR-DIAPHRAGM	GW-PJT,EPDM,T1.5,-,-,-,GR	PC	1	SA
U0038	DC97-04981D	ASSY-CLAMP DIAPHGRAM	WINGS-PJT,HSWR/ZPC4	PC	1	SA
U0078	DC97-11526C	ASSY-SEMI TUB BACK	WF206LNW,NO-HEATER/VE	PC	1	SNA
U0079	DC97-08650D	ASSY-SEMI TUB FRONT	WF206LNW,12%/NO-HEAT	PC	1	SA
U0086	DC67-00139A	WEIGHT-BALANCER(F)	GW-PJT,GC,-,-,-,RED,F	PC	2	SA
U0097	6011-001548	BOLT-ETC	M7.5,L30,ZPC(YEL),SWRCH18A,HEX	PC	20	SA
U0112	DC61-01338B	BRACKET-HOUSING BEARING	DR130,SBHG1-A(GI	PC	1	SA
U0133	DC66-00343C	DAMPER-SHOCK	GW-PJT,-,-,-,-,-,-,60N	PC	2	SA
U0133	DC66-00343E	DAMPER-SHOCK	GW-PJT,STEEL+PP+RUBBER,40N,	PC	2	SA
U0185	DC67-00155A	HOSE-O.F(I)	WINGS-PJT,EPDM,-,-,T2.0,-,BL	PC	1	SA
U0320	DC60-40141A	BOLT-HEX	SM10C/DAMPER,HEX,M8,L66,-,ZPC2	PC	2	SA
U0320	DC60-40141A	BOLT-HEX	SM10C/DAMPER,HEX,M8,L66,-,ZPC2	PC	2	SA
U0353	DC60-60044A	WASHER-PLAIN	-,ID10.5,OD30,T3,-,STS304	PC	1	SA
U0353	DC60-60044A	WASHER-PLAIN	-,ID10.5,OD30,T3,-,STS304	PC	2	SA
U0354	6031-001519	WASHER-WAVE	SK5,-,ID30,OD36,T0.5,ZPC2,3P	PC	1	SA
U0362	DC60-60049A	WASHER-SPRING	-,ID10.5,OD18,T2.5,-,SIR	PC	1	SA
U0363	DC65-20008C	CABLE CLAMP	DA-8N,NYLON#66,-,-,NTR,ID13.	PC	1	SA
U0364	DC69-00804A	PACKING-TUB	GW-PJT,EPDM-FORM,-,PI8,W624,	PC	1	SA
U0365	DC97-02412A	ASSY-BOLT	SWF-P12,MOTOR, M8*L62	PC	4	SA
U0367	DC63-10003C	SPONGE-HOSE AIR	POL,GRY,SWF-P12,HB22-GRE	PC	1	SA
U0385	DC61-01431B	BRACKET-TUB(B)	WINGS-PJT,SBHG1-A,T0.4,-,	PC	1	SA
W0031	DC72-00001A	BAND-RING	DRUM-MODEL,HSWR,-,-,-,,YEL,ID6	PC	1	SA
W0031	DC72-00001D	BAND-RING	WINGS-PJT,HSWR,T2.4,-,-,YEL,ID	PC	1	SA
W0031	DC72-00055A	BAND-RING	27" Washer,HSWR,#2/ M4x35,-,-,	PC	1	SA
Z0004	DC60-50148B	NUT-HEX	SM20C(NYLON),M12,-,-,ZPC3(YEL)	PC	1	SA

7-10. THE FRAME PARTS (WF206BNW/XAA)



Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
A0025	DC97-07448B	ASSY-FIXER TUB	WF337AAW,YELLOW	PC	4	SNA
A0083	DC61-00274A	GUIDE-HOSE	P/PV/M,PP,-,-,-,WHT,FRAME/DRA	PC	1	SA
A0282	DC63-00522A	COVER-BACK	GW-PJT,GI,T0.4,W426,L507,-,-,	PC	1	SA
A0352	DC61-01548A	GUIDE-SPRING	GW-PJT,POM,-,-,-,NTR,-	PC	2	SA
A0372	DC97-08740D	ASSY-CAP O.F	WF337AAW,FRONTIER2	PC	1	SA
B0045	DC61-01652A	LEG-RING	K4-PJT,Nylon66+GF30,NON,SIL,L1	PC	1	SNA
B0070	DC97-12560A	ASSY-LEG	WF206LNW,MARS-PJT	PC	4	SA
B0073	DC61-01747A	LEG-RUBBER	MARS,BUTYL+SWRCH10A,-,GRY+YEL	PC	1	SA
F0028	DC97-06995G	ASSY-FRAME	WF206LNW,NEAT-WHT/T0.8/VENT-1	PC	1	SA
F0125	DC61-01166A	FRAME-PLATE(U)	GW-PJT,EGI,-,-,-,T1.6,-,-	PC	1	SA
F0223	DC62-00202A	VALVE-CHECK	WINGS,EPDM,PO30,1~10BAR,BLK,	PC	1	SA
I0023	DC97-12534B	ASSY-HOSE DRAIN(I)	WF337AAW,L1920/BLOW-S	PC	1	SA
I0030	DC62-10278A	HOSE-HANGER	-,PP(JS20),-,-,-,-,NTR,-	PC	1	SA
I0040	DC62-00075A	HOSE-WATER(H)	-,NBR+NYLON,ID10.2,OD16.5,	PC	1	SA
I0040	DC62-00075B	HOSE-WATER(C)	-,NBR+NYLON,ID10.2,OD16.5,	PC	1	SC
J0013	DC96-01414A	ASSY-PUMP DRAIN	WF337AAW,FRONTIER II	PC	1	SA
J0017	DC61-01853A	BRACKET-PUMP	WF337AAW,SGCC(GI),T1.2,-,-,	PC	1	SA
J0019	DC61-01871A	CASE-PUMP	WF337AAW,PP(5113MF6),-,-,-,WHT	PC	1	SNA
J0025	DC31-00054A	PUMP-DRAIN	-,120V,60Hz,40mm,80W/3600RPM	PC	1	SNA
J0029	DC63-00766A	CUSHION-PUMP	WF206LNW,EPDM,-,-,-,-,MARS-	PC	1	SA
N0001	DC61-00133A	CLAMPER HOSE	P1291,PP(BJ-730),ID24.5,OD2	PC	1	SNA
N0006	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	PC	4	SA
N0006	DC61-40081A	HOLDER-WIRE	DAWH-2NC,NYLON66,-,-,-,-,NTR	PC	5	SA
P0001	DC97-08634J	ASSY-COVER TOP	WF206LNW,NEAT-WHT	PC	1	SA
P0053	DC63-00523G	COVER-TOP	WF206LNW,SECC(EGI),T0.8,-,-,-,	PC	1	SNA
Q0006	DC97-03716C	ASSY-SENSOR PRESSURE	SEW-3HW123,DN-S14T/	PC	1	SA
R0161	DC62-40178A	SEAL-WATER	-,NR,BLK,-,-,-,ID12XOD25XT3	PC	4	SA
U0161	DC61-01200B	GUIDE-WIRE	WF206LNW,SGCC(GI),T0.8,-,-,-,	PC	1	SA
U0380	DC97-08635G	ASSY-ABSORBER	WF306,WEIGHT 390g(SCP1)	PC	1	SA
W0002	DC96-00757A	ASSY POWER CORD	GW-PJT,GW,UL/CSA,3/16AWG	PC	1	SA
W0004	DC96-01043D	ASSY-M.WIRE HARNESS	WF206ANW,MARS WASHER	PC	1	SA
W0036	DC29-00013A	FILTER-EMI	LFT-215G,WINGS_PJT,250VAC,15A	PC	1	SA
X0051	DC99-00815A	ASSY-CUSHION PUMP	WF206LNW,MARS-PJT	PC	3	SA
Y0162	MFS-MEMS-00	ASSY PCB PARTS(S)	MES-MEMS-00	PC	1	SA
Z0047	6009-001458	SCREW-SPECIAL	CH,+,-,M4,L10,ZPC3(BLK),SW	PC	2	SA
Z0048	6009-001476	SCREW-HEX	HEX,+,-,M5,L10,ZPC3(BLK),SWRCH	PC	2	SA

7-11. PARTS LIST (SA/SC others) (WF206BNW/XAA)

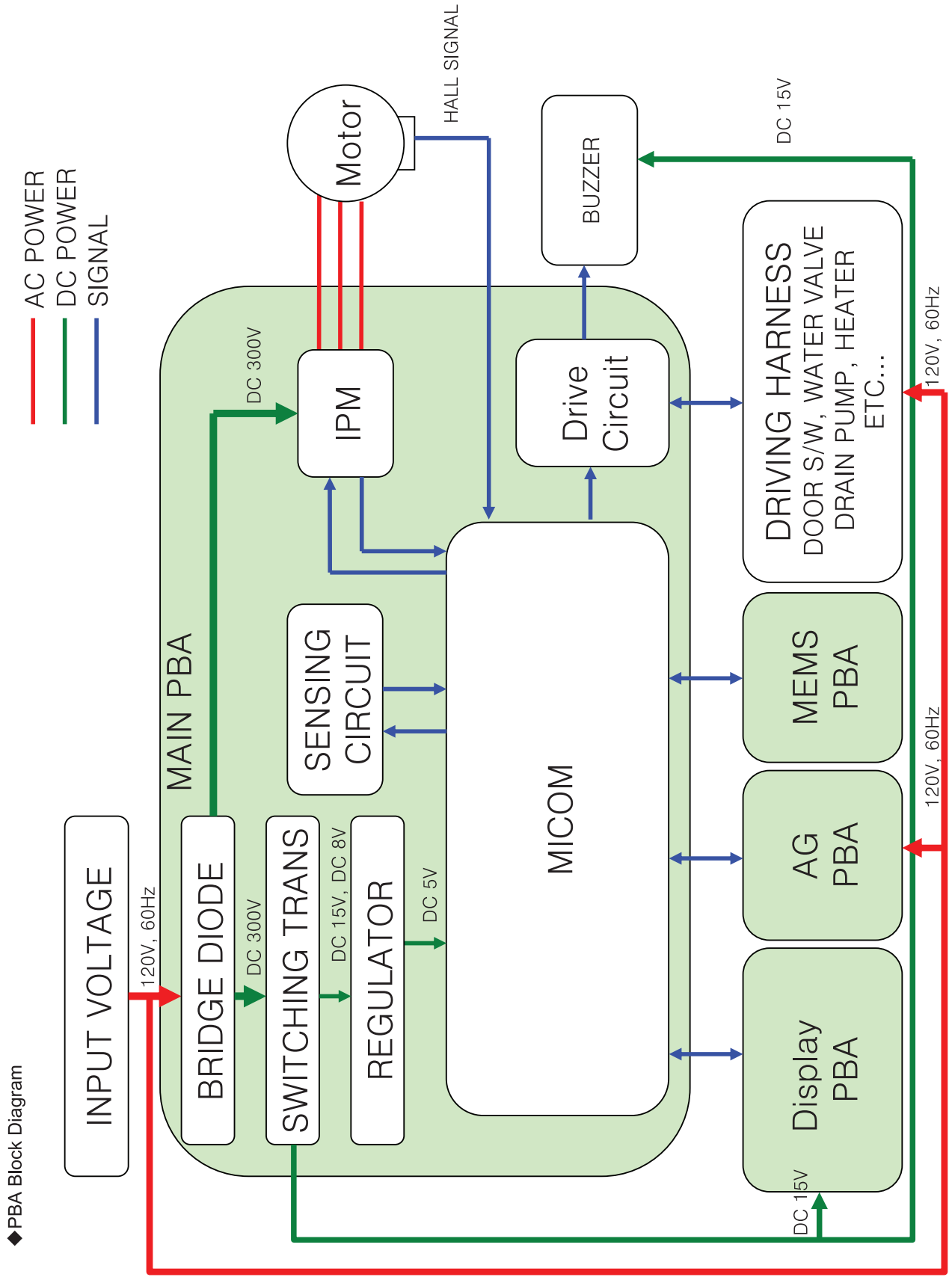
Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
A0028	DC61-01723A	BRACKET-FIXER(O/L)	WF206LNW,SGCC(GI),T2.	PC	1	SA
A0028	DC61-01723A	BRACKET-FIXER(O/L)	WF206LNW,SGCC(GI),T2.	PC	1	SA
A0028	DC61-01586B	BRACKET-FIXER(L)	WF206LNW,SGCC(GI),T1.0,	PC	1	SA
A0029	DC61-01587B	BRACKET-FIXER(R)	WF206LNW,SGCC(GI),T1.0,	PC	1	SA
A0032	DC97-12305A	ASSY-BRACKET FIXER(O/L)	WF206LNW,BRACKET	PC	1	SA
A0033	DC97-12306A	ASSY-BRACKET FIXER(O/R)	WF206LNW,Bracket	PC	1	SA
A0034	DC60-40146A	BOLT-SPANER	-,HR,-,T2.3,OD36,-,BLK,-,-	PC	1	SA
A0043	DC61-10688A	CAP-FIXER	SWF-P12,PP(TB53),-,-,-,WHT,-,	PC	6	SA
A0055	DC61-01679A	CLIP-HOSE	SEW-HFR177AR,SK5,T1.6,NTR,ID37	PC	1	SA
A0125	6046-000310	STAND OFF	ID11.5,L2,NTR,NYLON66,DAWH-3NA	PC	4	SA
B0027	DC97-12492A	ASSY-WEIGHT	WF316,WEIGHT 390g(SCP1)	PC	1	SA
D0105	DC61-01576A	SUPPORT-HINGE	FRONTIER-PJT,STS430,T1.2,-	PC	1	SA
D0111	DC72-00034H	SPONGE-EPDM	WF316LAW,YOUNGBOARD,-,T1.0,W	PC	1	SA
D0111	DC72-00034B	SPONGE-EPDM	MAH2400,EPDM,-,T1,W15,L500,W	PC	3	SA
J0020	DC63-00810A	COVER-PUMP	WF337AAW,PP(FH-44N),-,-,-,-,-	PC	1	SA
M0047	DC61-01736B	HOLDER-WIRE	WF337AAW,NYLON66,OD31,H15,L1	PC	1	SA
U0069	DC97-08632C	ASSY-GUIDE WIRE	WF206LNW,MARS-PJT/T0.8	PC	1	SA
U0113	DC61-01817A	BUSH-BEARING	Frontier,STS304,ID30,OD62,L	PC	1	SA
U0320	DC60-40137A	BOLT-HEX	MARS-PJT,STS304,M8,-,P1.25,L30	PC	6	SA
U0320	6011-001565	BOLT-HEX	M6,L35.1,ZPC(YEL),SWCH25K,TAPP	PC	3	SA
U0353	DC60-60044A	WASHER-PLAIN	-,ID10.5,OD30,T3,-,STS304	PC	2	SA
U0353	6031-001531	WASHER-PLAIN	SCP1,-,ID7,OD14,T0.8,ZPC2(Y	PC	1	SA
U0363	DC65-20008C	CABLE CLAMP	DA-8N,NYLON#66,-,-,NTR,ID13.	PC	2	SA
U0363	6502-000127	CABLE CLAMP	DAWH-18NB,ID15,-,NYLON66,NTR	PC	3	SA
U0363	6502-000127	CABLE CLAMP	DAWH-18NB,ID15,-,NYLON66,NTR	PC	4	SA
U0367	DC63-10003E	SPONGE-HOSE AIR	GW-PJT,HB22-GREY,-,T130,	PC	1	SA
U0379	DC67-00252A	WEIGHT-ABSORBER	WF316,SHP1(PO##),4mm,#70	PC	1	SA
U0379	DC67-00253A	WEIGHT-ABSORBER	WF316,SHP1(PO##),4mm,#70	PC	4	SA
U0379	DC67-00255A	WEIGHT-ABSORBER	WF316,SHP1(PO##),1mm,#70	PC	2	SA
U0382	DC61-01820A	FIXER-WEIGHT ABSORBER	WF316,SM10C,L25/D6	PC	5	SA
W0030	DC62-10022X	HOSE-PUMP	FRONTIER,PP,ID20.6,OD27,-,L192	PC	1	SA
W0035	DC32-00010A	THERMISTOR	-,11982OHM AT 25#,-,-55~155,-	PC	1	SA
W0059	DC63-10002D	SPONGE-HARNESS	-,PU-FOAM,-,T10,W100,L80,	PC	4	SA
W0063	DC69-00824A	PACKING-THERMISTOR	GW-PJT,EPDM,-,-,W17,-	PC	1	SA
X0050	DC61-01445A	GUIDE-CUSHION	MAH98700AWW,PP,T2.8,-,-,-,	PC	1	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	3	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	12	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	1	SA
Z0008	6002-000444	SCREW-TAPPING	TH,+,-,2S,M4,L14,PASS,STS4	PC	3	SA
Z0011	6002-001277	SCREW-TAPPING	HEX,+,-,2,M6.5,L40,ZPC(WHT	PC	12	SA
Z0013	6002-001279	SCREW-TAPPING	PWH,+,-,1,M4,L12,PASS,STS4	PC	2	SA
Z0038	6002-000241	SCREW-TAPPING	TH,+,-,2S,M5,L12,ZPC(WHT),	PC	1	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	6	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	15	SA
Z0055	6002-001374	SCREW-TAPPING	TH,+,WE,-,M4,L12,ZPC3 (WHT	PC	1	SA

7-11. PARTS LIST (SA/SC others) (WF206BNW/XAA)

Location.No	CODE-NO	DESCRIPTION	SPECIFICATION	Un	Q'TY	SA/SNA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	4	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	3	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	2	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	2	SA
Z0056	6002-001376	SCREW-TAPPING	TH,+,-,1,M4,L12,ZPC3 (WHT)	PC	1	SA
Z0062	6002-000630	SCREW-TAPPING	PH,+,-,2S,M3,L8,ZPC(WHT),S	PC	1	SA
Z0064	DC97-14006A	ASSY-SCREW	WF203,SCREW-TAPPING(M4+L16,TH	PC	2	SA
Z0065	6003-001563	SCREW-TAPTITE	TH,+,-,S,M4,L8,ZPC3(BLK),S	PC	2	SA
Z0065	6003-001563	SCREW-TAPTITE	TH,+,-,S,M4,L8,ZPC3(BLK),S	PC	1	SA
Z0065	6003-001563	SCREW-TAPTITE	TH,+,-,S,M4,L8,ZPC3(BLK),S	PC	4	SA

Memo

8. BLOCK DIAGRAM

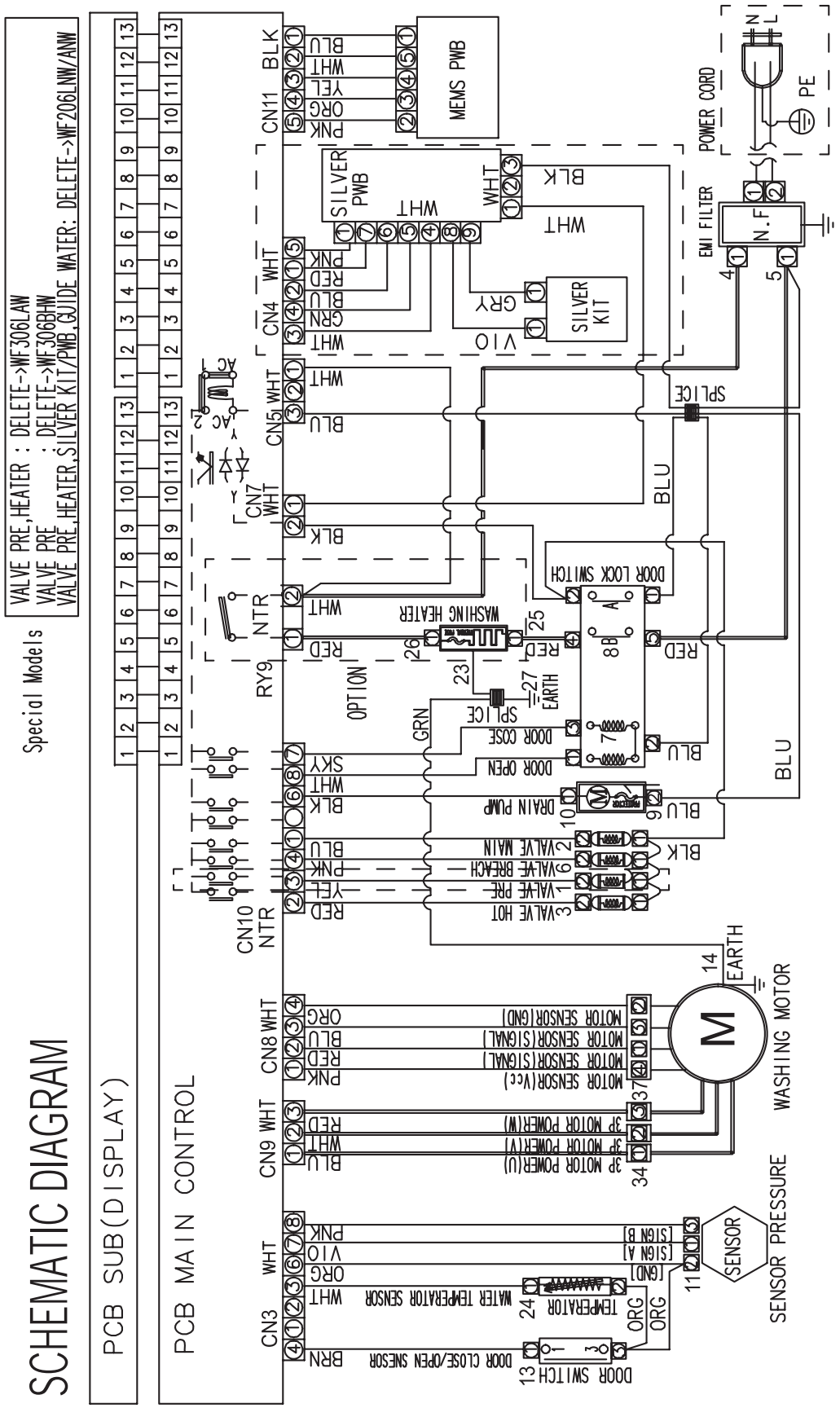


◆PBA Block Diagram

Memo

9. WIRING DIAGRAM

9-1. WIRING DIAGRAM

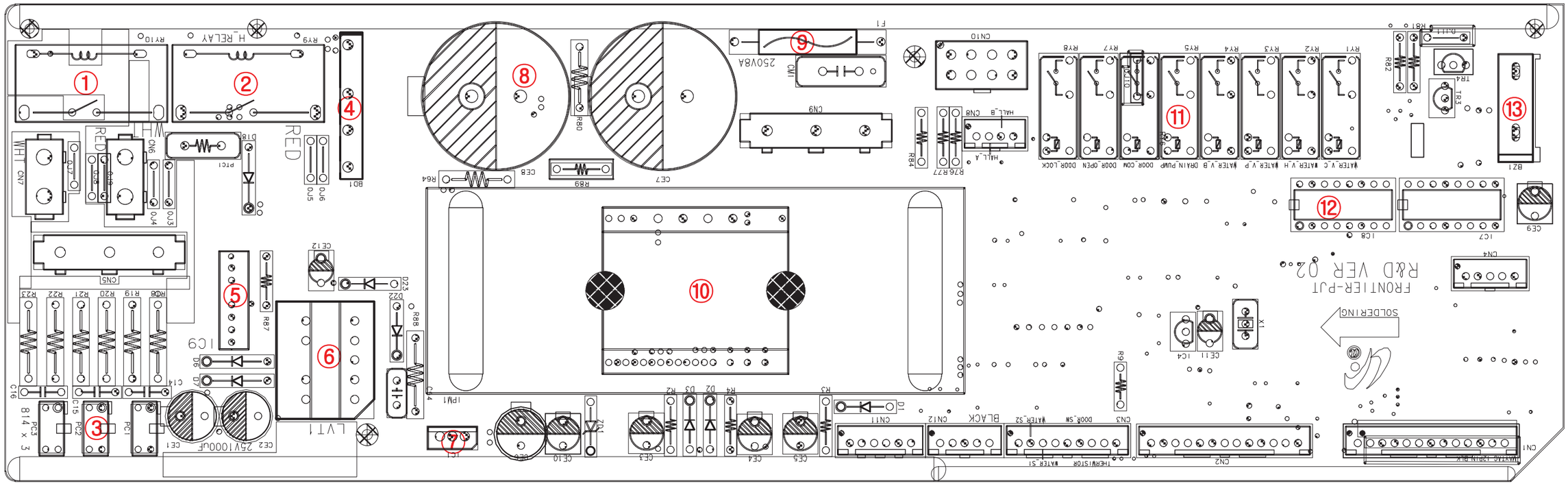


9-2. REFERENCE INFORMATION

BLK	BLACK
BLU	BLUE
GRN	GREEN
GRY	GRAY
NTR	NEUTRAL
ORG	ORANGE
PNK	PINK
RED	RED
SKYBLU	SKYBLUE
VIO	VIOLET
WHT	WHITE
YEL	YELLOW
N.F (Noise Filter)	
SENSOR PRESSURE	
SILVER NANO	
DRY CONDENSOR	
DRY MOTOR	
THERMOSTAT	
DOOR LOCK	
DOOR OPEN	
DOOR S/W	
HOT VALVE	
MAIN VALVE	
PRE VALVE	
DRY VALVE	
DRAIN MOTOR	
WATER HEATER	
STEAM HEATER	
DRY HEATER	
SPLICE	

10. PCB DIAGRAM

10-1. MAIN PCB LAYOUT



Item	Part Number	Description
1	Ry10	Main Power Relay
2	Ry9	Heater Relay
3	PC1~3	Check for the Frequency Make the Zerocross Door Lock Check
4	BD1	It Work to Change the AC to the DC
5	IC9	Making a stable DC
6	LVT1	Chopping the DC Link
7	IC1	Regulation for the 5V

Item	Part Number	Description
8	CE7,8	Charge the DC LINK (300V)
9	Fuse1	Limit the Over-Current
10	IPM1	Control to Motor
11	Ry1~8	Turn On/Off the Load (Valve etc.)
12	IC7,8	Drive the Relay Supply the Current to the Acting Current
13	BZ1	Making a Sound

10-2. CONNECTOR & RELAY TERMINALS DESCRIPTION (MAIN PBA)

Relay 9

1. Connects to Washing Heater
2. Connects to EMI Filter
   (Remove the Noise/AC2)

CN9

1. Connects to Motor (U Phase)
2. Connects to Motor (V Phase)
3. Connects to Motor (W Phase)

CN10
1. Connects to Main Valve
2. Connects to Hot Valve
3. Connects to Pre Valve
4. Connects to Bleach Valve
5. NC
6. Connects to Drain Pump
7. Connects to Door Lock Switch
   (For the Close)
8. Connects to Door Lock Switch
   (For the Open)

CN8

1. Connects to Hall Sensor (Vcc)
2. Connects to Hall Sensor (Signal B)
3. Connects to Hall Sensor (Signal A)
4. Connects to Hall Sensor (Ground)

CN4

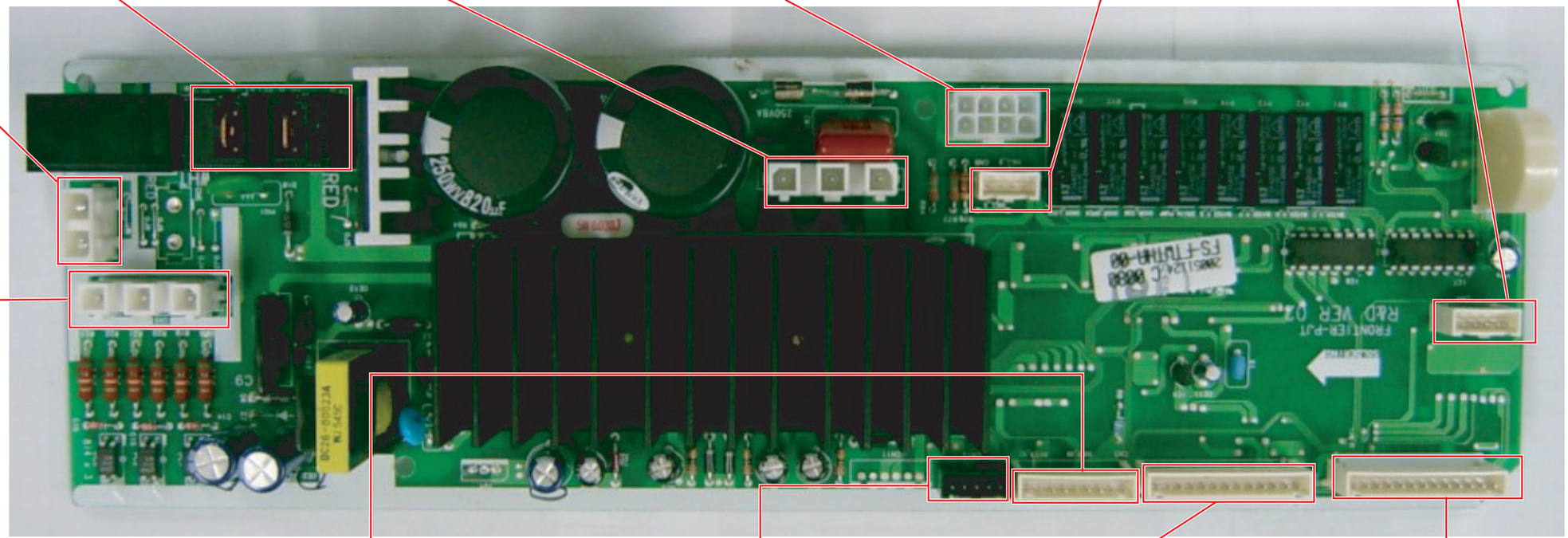
1. Connects to AG PBA (I_H)
2. Connects to AG PBA (PWM)
3. Connects to AG PBA (AG A)
4. Connects to AG PBA (AG B)
5. Connects to AG PBA (Ground)

CN7

1. Connects to AG Kit
   (Supply for the power)
2. Connects to
   Door Lock Switch
   (For the Safety)

CN5

1. Connects to EMI Filter
   (Remove the Noise/AC1)
2. NC
3. Connects to Relay 9



CN3

1. NC
2. NC
3. Connects to Water Temperature Sensor
4. Connects to Door Lock switch
   (Door Open/Close Sensor)
5. Connects to Ground
6. Connects to Ground
7. Connects to Water Level Sensor (Signal A)
8. Connects to Door Lock Switch (Signal B)
9. Connects to Ground

CN12

1. Connects to MEMS PBA (Ground)
2. Connects to MEMS PBA
3. Connects to MEMS PBA (Signal X)
4. Connects to MEMS PBA (Signal Y)
5. Connects to MEMS PBA (Vcc)

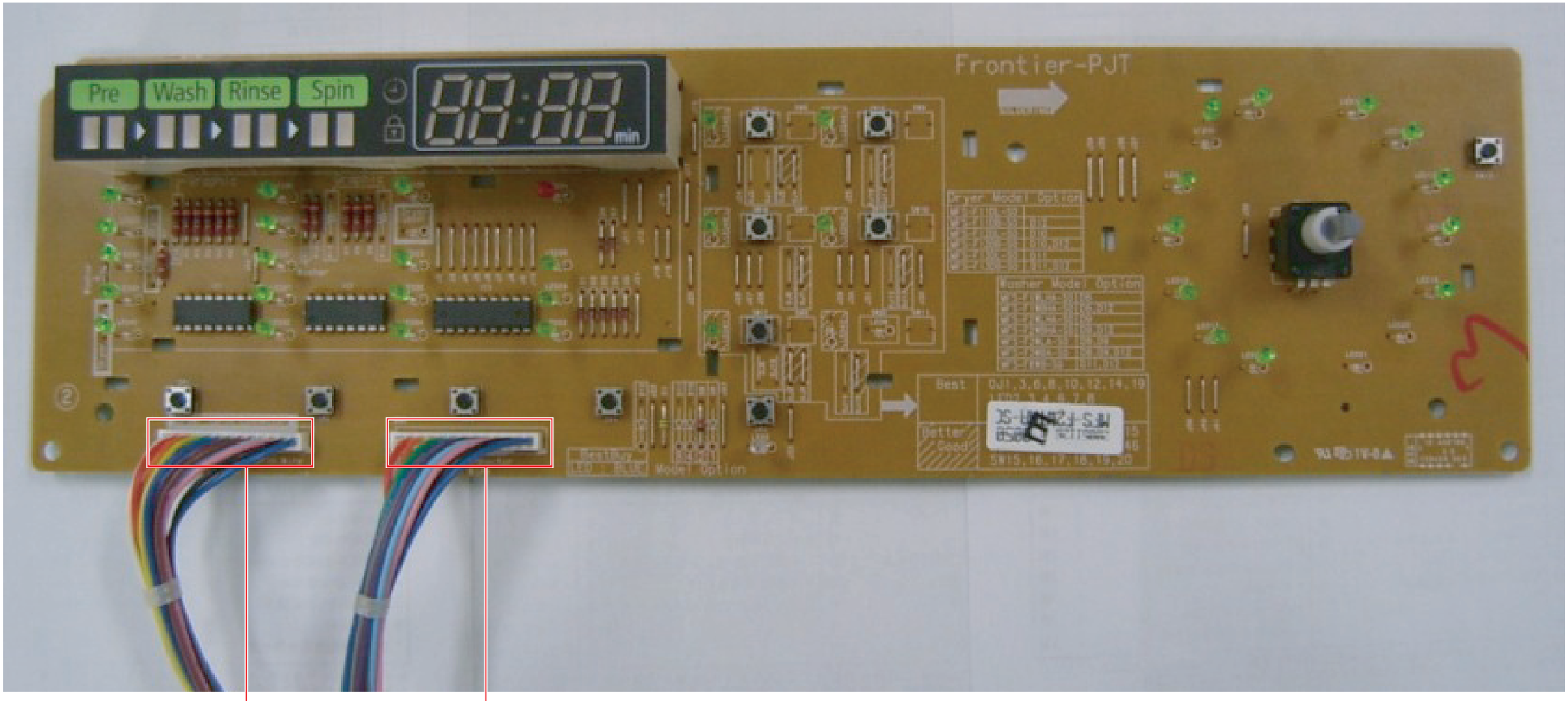
CN2

1. Connects to Sub PBA (Seq0)
2. Connects to Sub PBA (Rotary Switch A)
3. Connects to Sub PBA (Rotary Switch B)
4. Connects to Sub PBA (Key2)
5. Connects to Sub PBA (Key3)
6~13. Connects to Sub PBA
   (Digit Signal 0~7 / In Regular Sequence)

CN1

1. Connects to Sub PBA (Ground)
2. Connects to Sub PBA (Vcc)
3. Connects to Sub PBA (Key 1)
4~13. Connects to Sub PBA
   (Seg1~9,13/In Regular Sequence)

10-3. CONNECTOR & RELAY TERMINALS DESCRIPTION (SUB PBA)



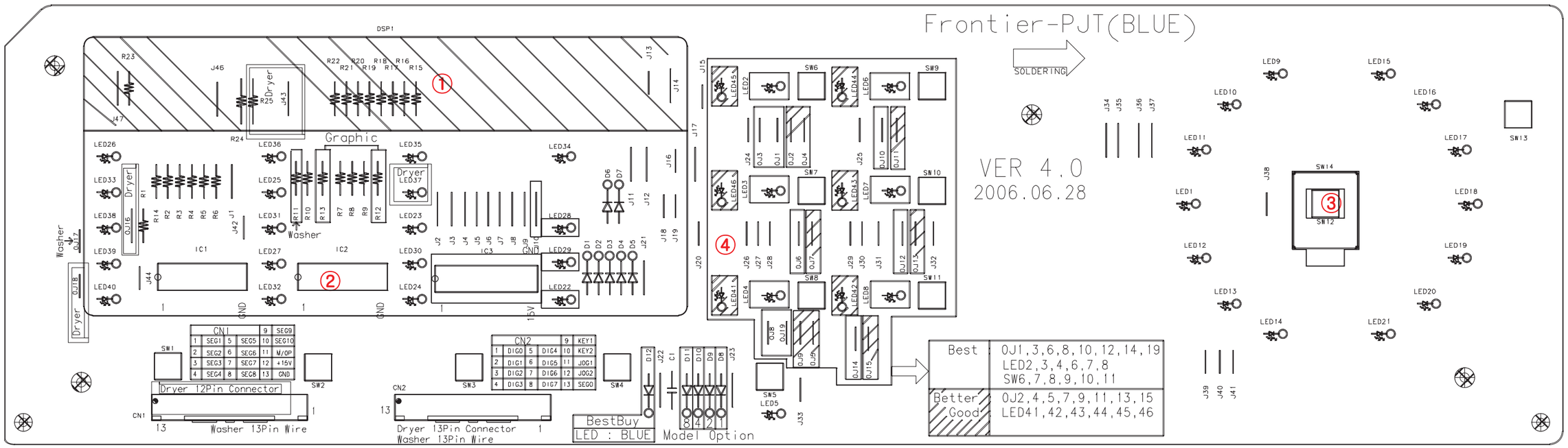
CN1

1. Connects to Main PBA (Ground)
2. Connects to Main PBA (Vcc)
3. Connects to Main PBA (Key 1)
4~13. Connects to Main PBA
(Seg1~9,13/In Regular Sequence)

CN2

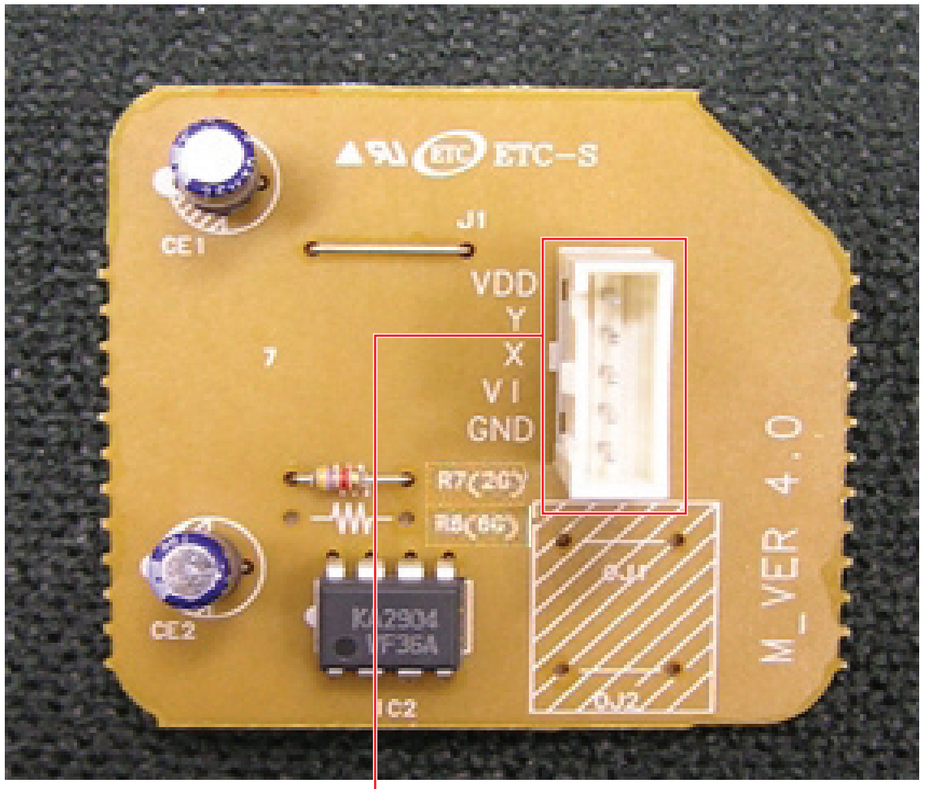
1. Connects to Main PBA (Seq0)
2. Connects to Main PBA (Rotary Switch A)
3. Connects to Main PBA (Rotary Switch B)
4. Connects to Main PBA (Key2)
5. Connects to Main PBA (Key3)
6~13. Connects to Main PBA
(Digit Signal 0~7 / In Regular Sequence)

10-4. SUB PCB LAYOUT (THE PRINCIPLE PART)



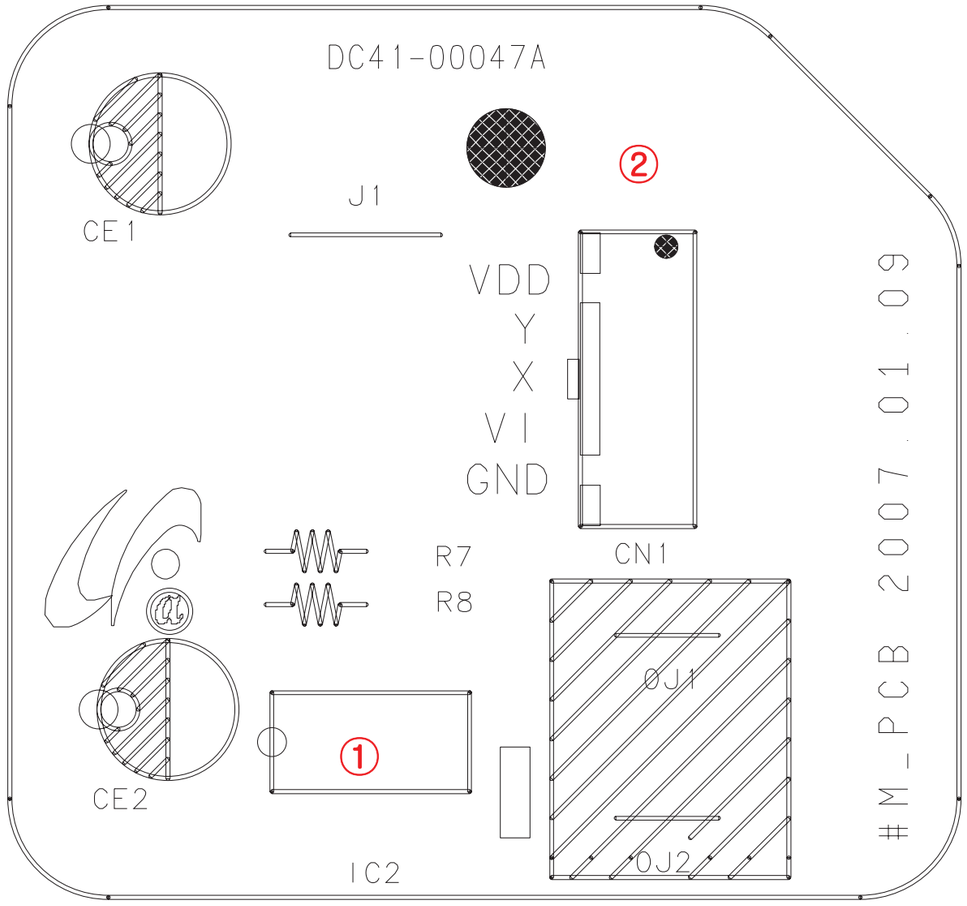
Item	Part Number	Description
1	DSP1	Display the Course
2	Ry9	Drive the LED & Display Supply the Current to the Acting Current
3	IC1~3	Rotary Switch (For the Selecting a Course) Start & Pause Key
4	SW12,14	Input the Detail Course Display the Resent Course

10-5. MEMS PBA CONNECTOR TERMINAL DESCRIPTION & LAYOUT (THE PRINCIPLE PART)



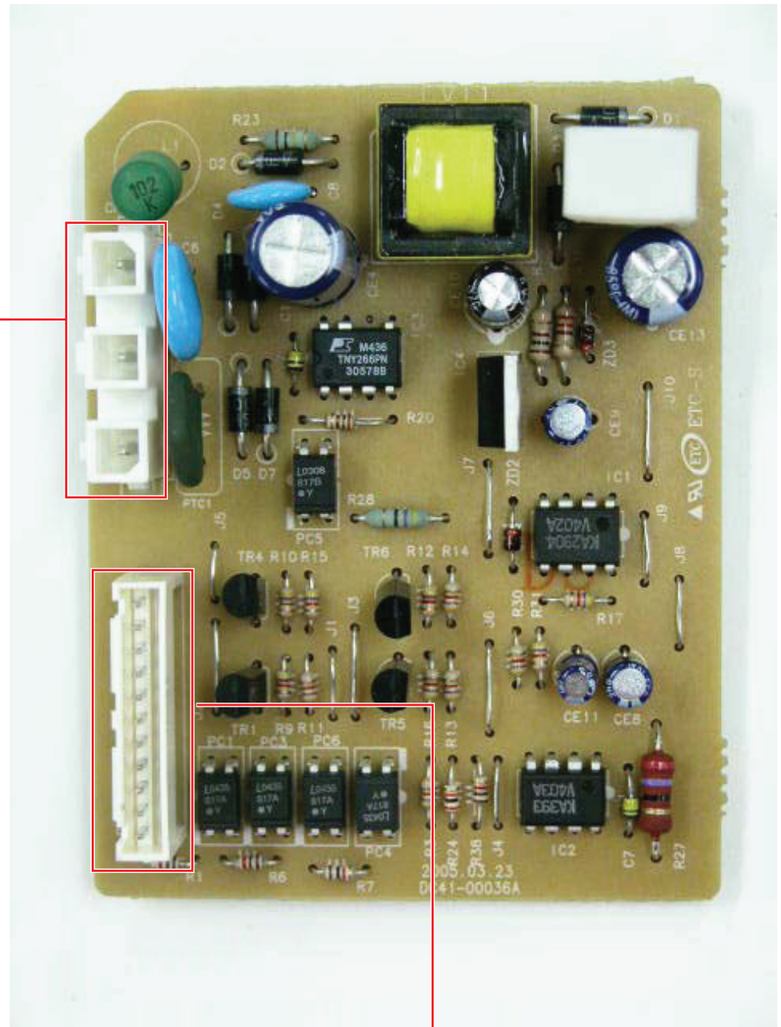
CN1

1. Connects to Main PBA (Ground)
2. Connects to Main PBA
3. Connects to Main PBA (Signal X)
4. Connects to Main PBA (Signal Y)
5. Connects to Main PBA (Vcc)



Item	Part Number	Description
1	IC1	Matching for the Impedance
2	IC2 (MEMS IC)	Sensing for the Washing Machine Vibration ※This Part Is located at Bottom. (SMT Type)

10-6. AG PBA CONNECTOR TERMINAL DESCRIPTION & LAYOUT (THE PRINCIPLE PART)



CN1

1. Connects to Main PBA CN7 (AC2)
2. NC
3. Connects to EMI Filter (AC1)

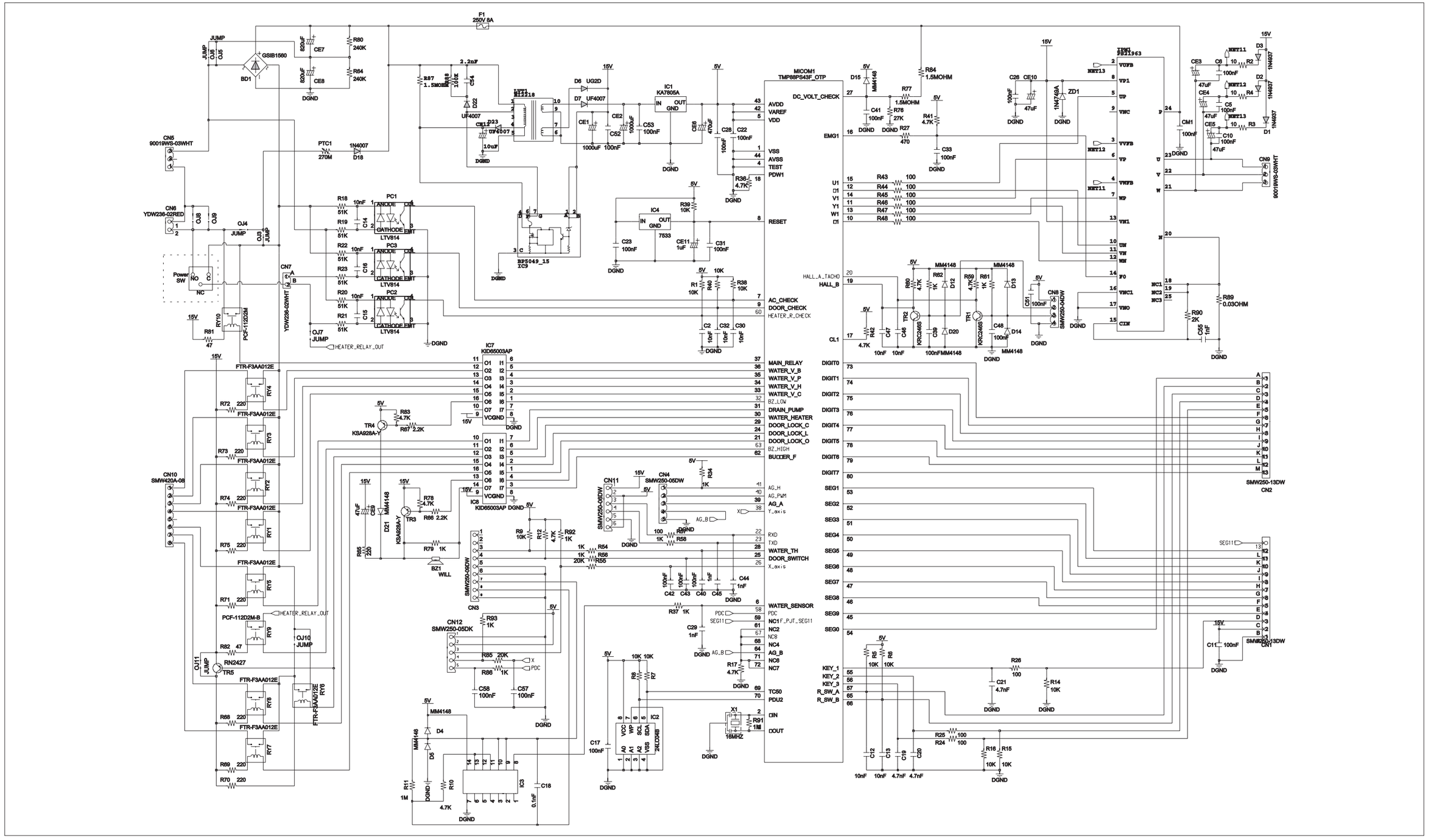
CN2
1. Connects to AG PBA (Ground)
2. Connects to AG PBA (I_H)
3. Connects to AG PBA (PWM)
4. Connects to AG PBA (Signal A)
5. Connects to AG PBA (Signal B)
6. NC
7. NC
8. Connects to AG PBA (Ag_A)
9. Connects to AG PBA (Ag_B)

Item	Part Number	Description
1	LVT1	Chopping the DC Link
2	R37	Dummy Load (For Making the Operation Voltage)
3	L1	Help for the EMI, EMC
4	IC3	Making a stable DC
5	PC	Isolation for the water
6	IC2	Comparator
7	TR1~4	Change the water flow

11. SCHEMATIC DIAGRAMS

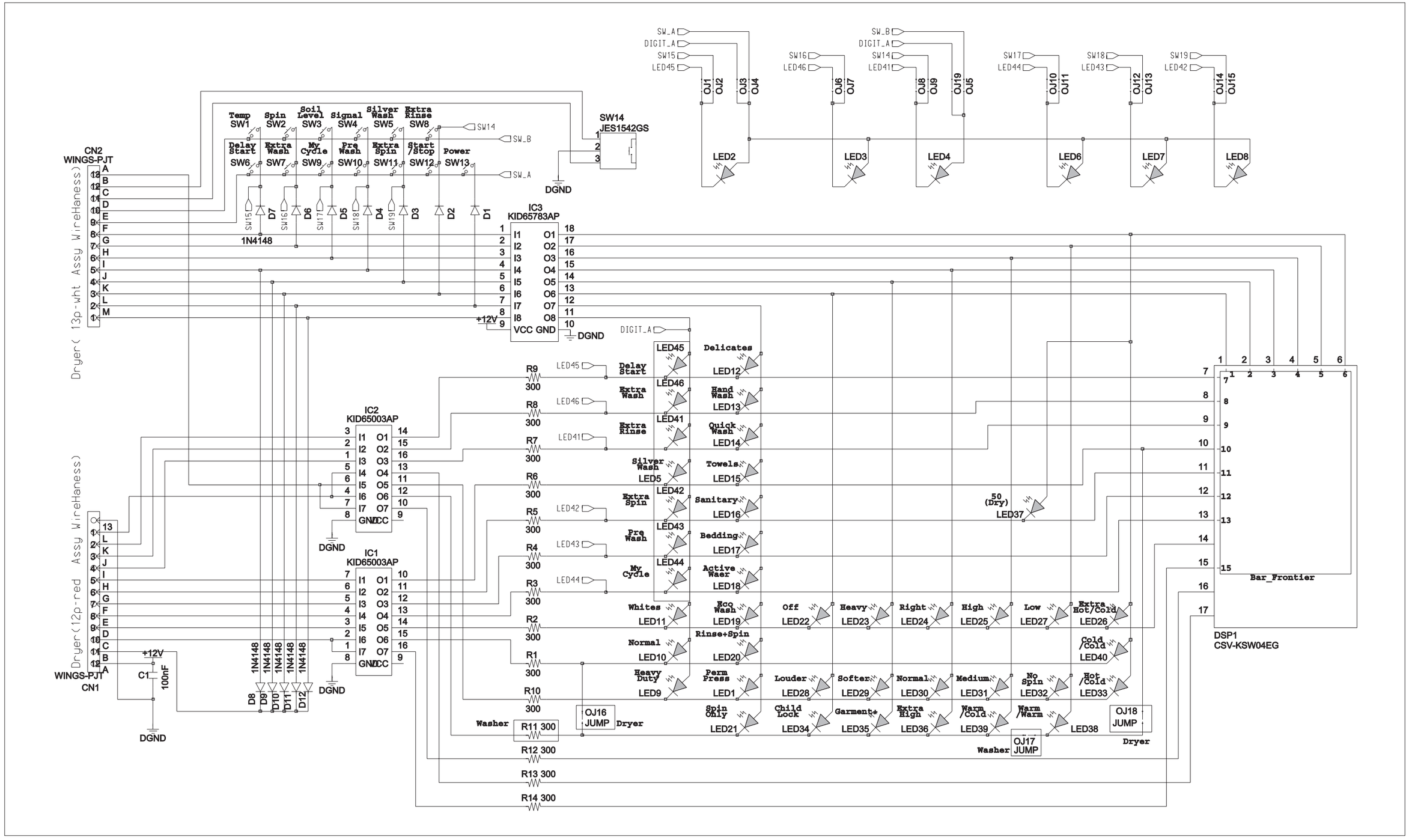
11-1. MAIN PCB

* This Document can not be used without Samsung's authorization.



11-2. SUB PCB

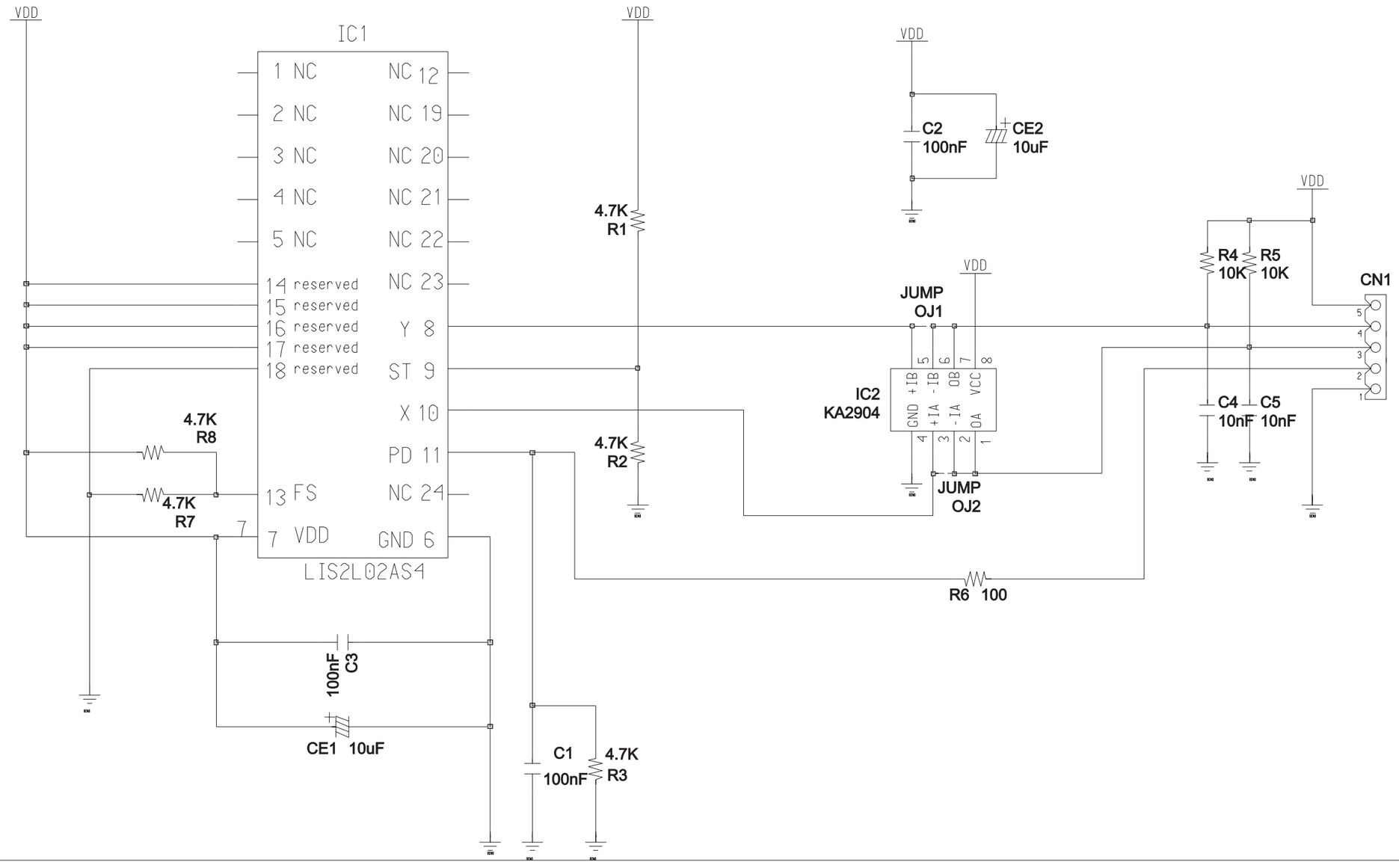
* This Document can not be used without Samsung's authorization.



11-3. MEMS PCB

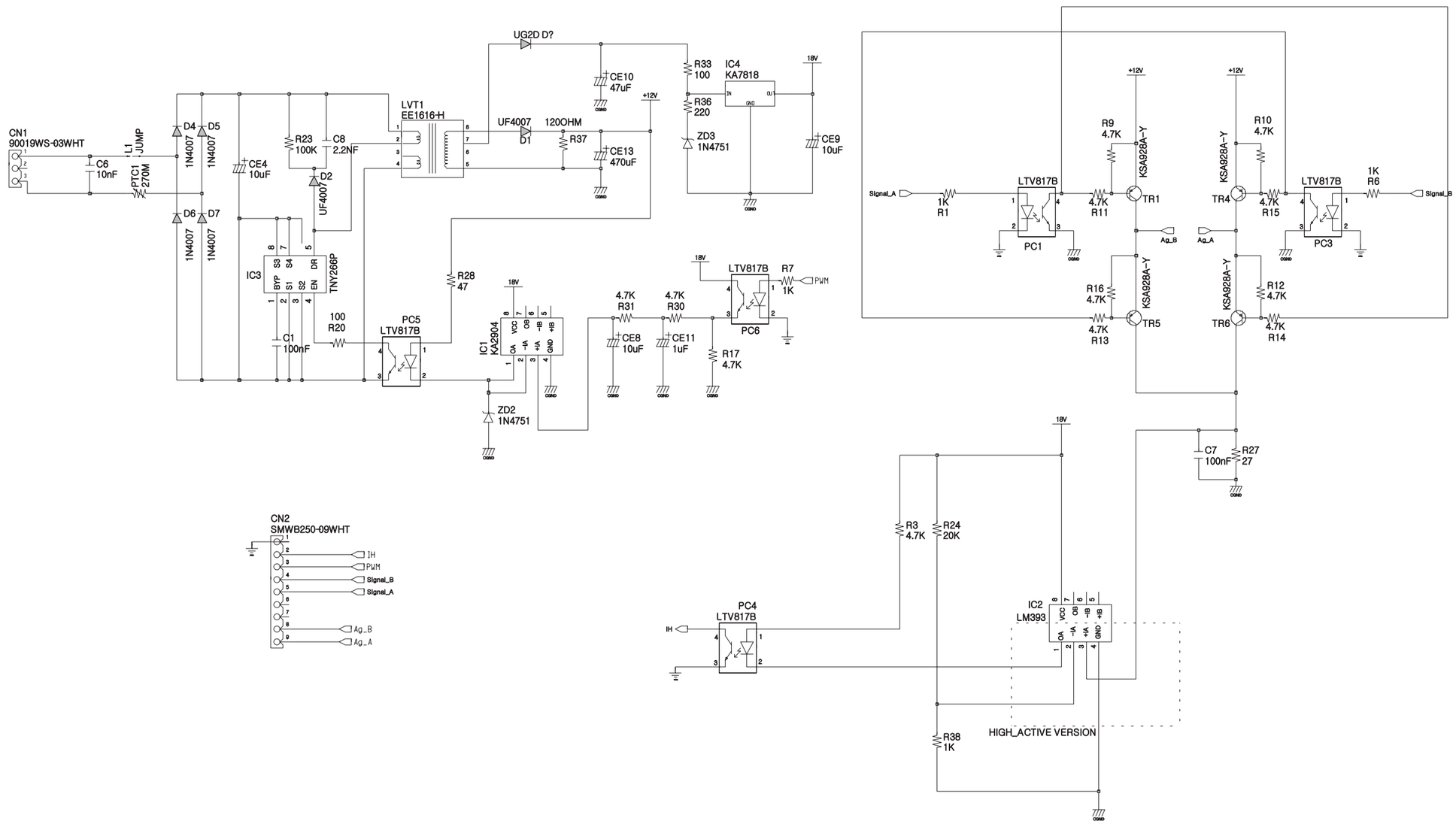
* This Document can not be used without Samsung's authorization.

No.	PIN	FUNCTION
9	ST	Self Test (0:normal mode; 1:Self test)
11	PD	Power Down(0:normal mode; 1:Power-down mode)
13	FS	Full Scale (0:2g ; 1: 6g Full scale)



11-4. AG PCB

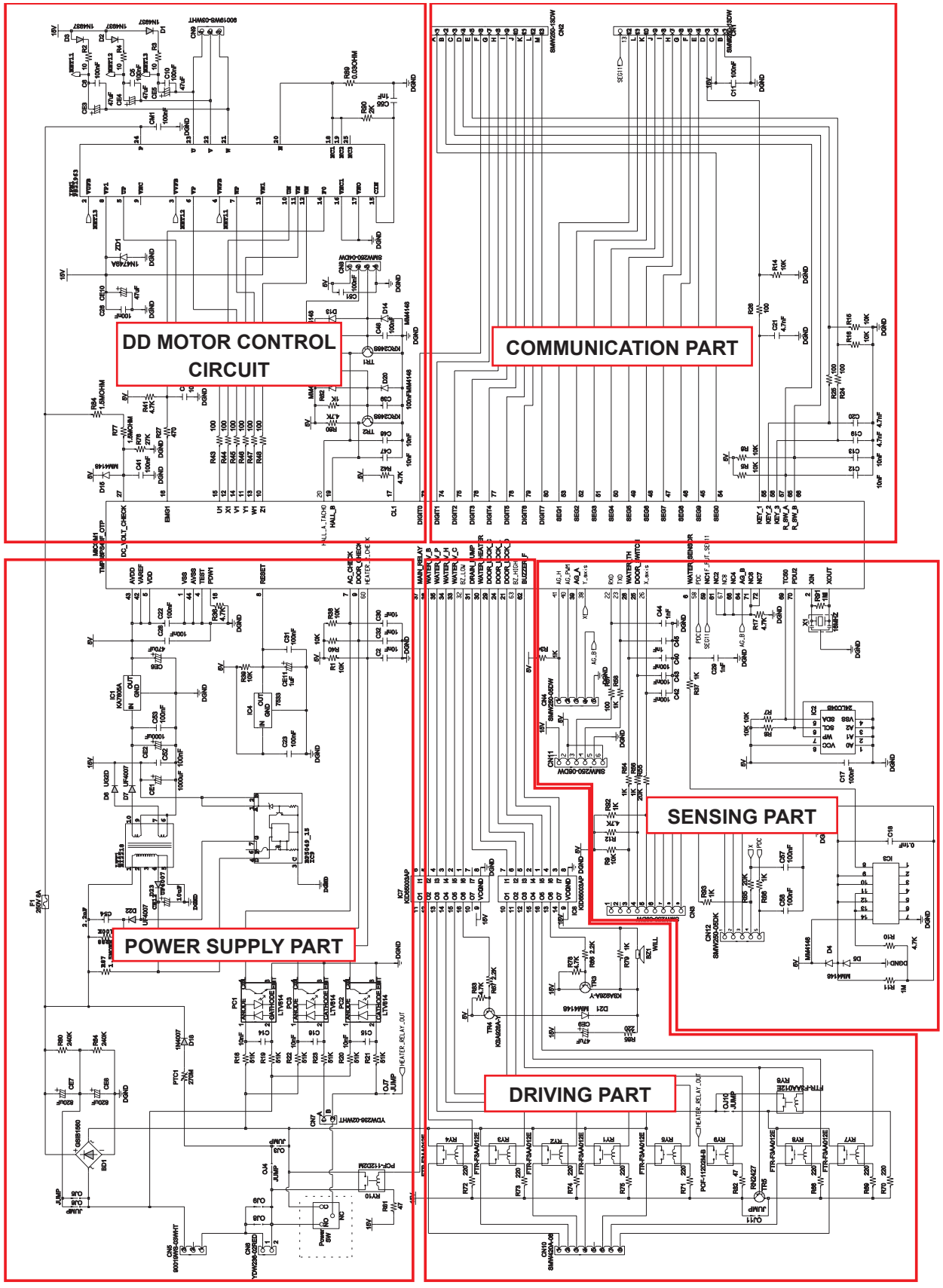
* This Document can not be used without Samsung's authorization.



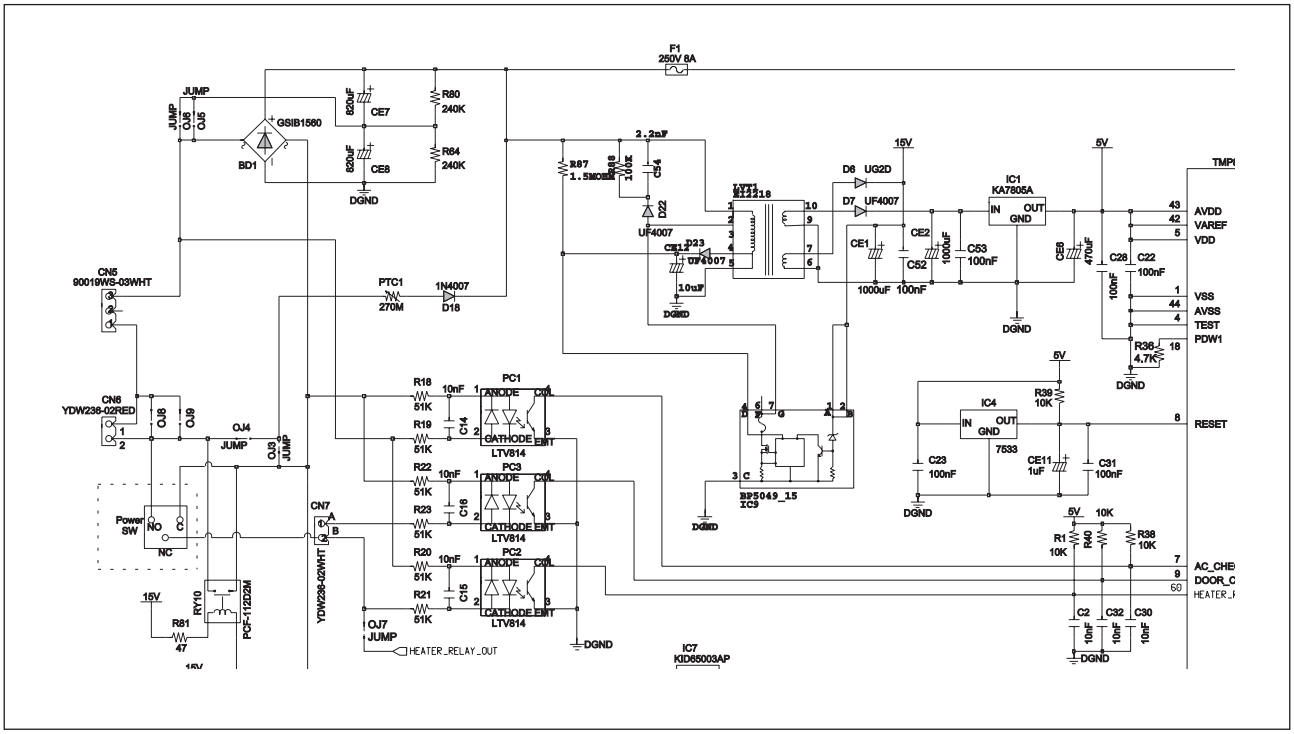
2ND AG_KIT VERSION_2

12. CIRCUIT DESCRIPTIONS

12-1. OVERALL SYSTEM



12-2. POWER SUPPLY PART



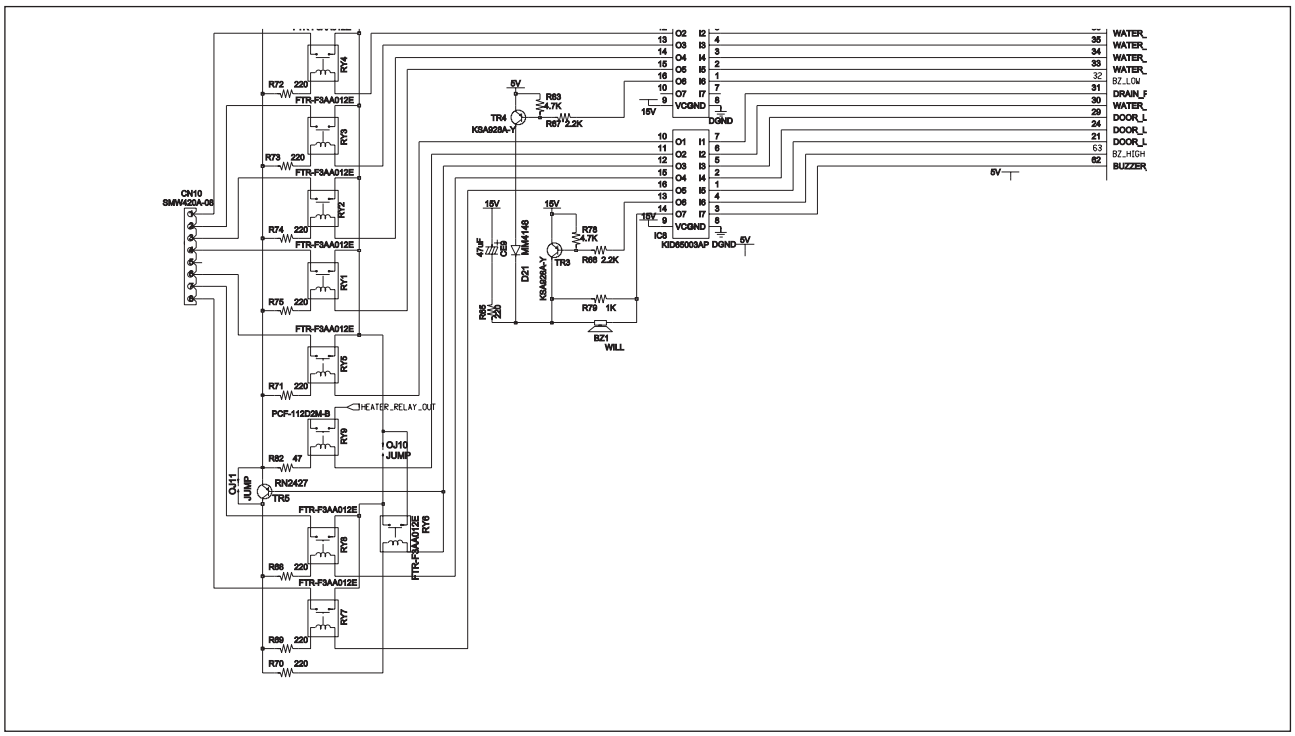
▶ Role

- Generates consistent voltage necessary to control the circuit such as 15V and 5V from the high AC voltage.
- This circuit uses switching transformer.

▶ Operation

- Generates DV voltage from AC input through diode (bridge).
- Generates 15V and 8V voltage from switching transformer.
- Static voltage of 5V output from IC1 output terminal.

12-3. DRIVING PART



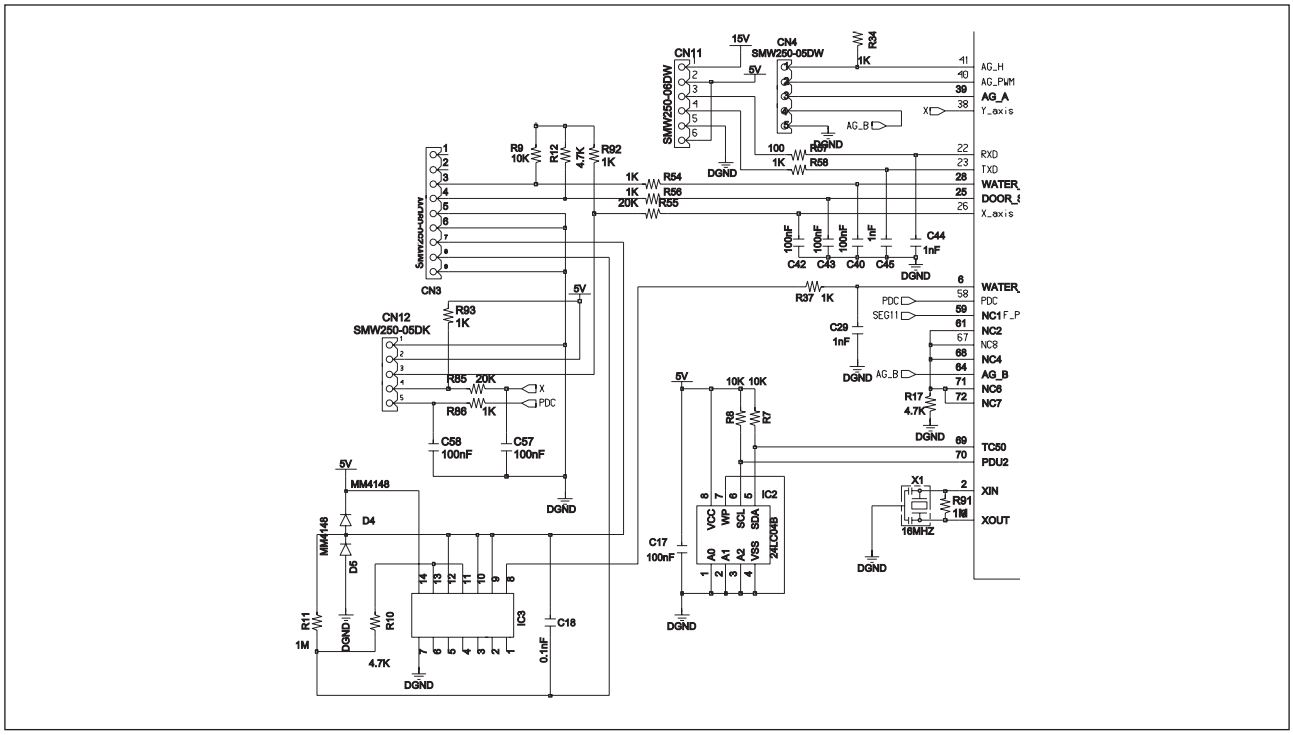
▶ Role

- Controls the electricity connection of electronic parts of the set.

▶ Operation

- Sends HIGH signal through electronics port to operate MICOM.
- When HIGH signal is received in IC7 and IC8 input, the output becomes LOW.
- At this time, the relay operates to supply power to the electronic parts.

12-4. SENSING PART



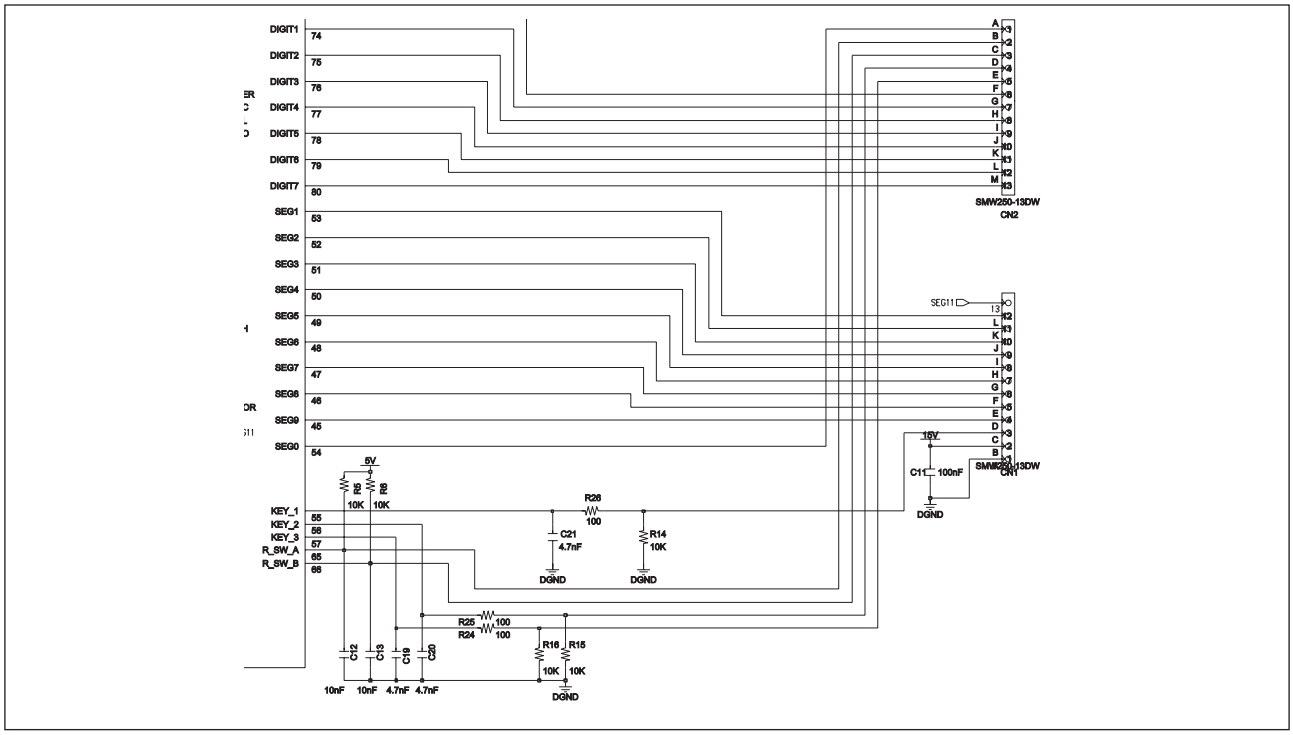
▶ Role

- Detects temperature of each part though THERMISTOR output.
- Measures the frequency of water level sensor and detects the quantity.
- Judges whether the door is closed or not.

▶ Operation

- Detects the output of IC3 (MICOM PIN 6) to judge current quantity.
- Controls water supply temperature though THERMISTOR.
- Detects the contact point of Door Switch to judge whether the door is closed or not.

12-5. COMMUNICATION PART



▶ Role

- Communication circuit for display control of SUB PCB
- Encode of SUB PCB and circuit for switch control

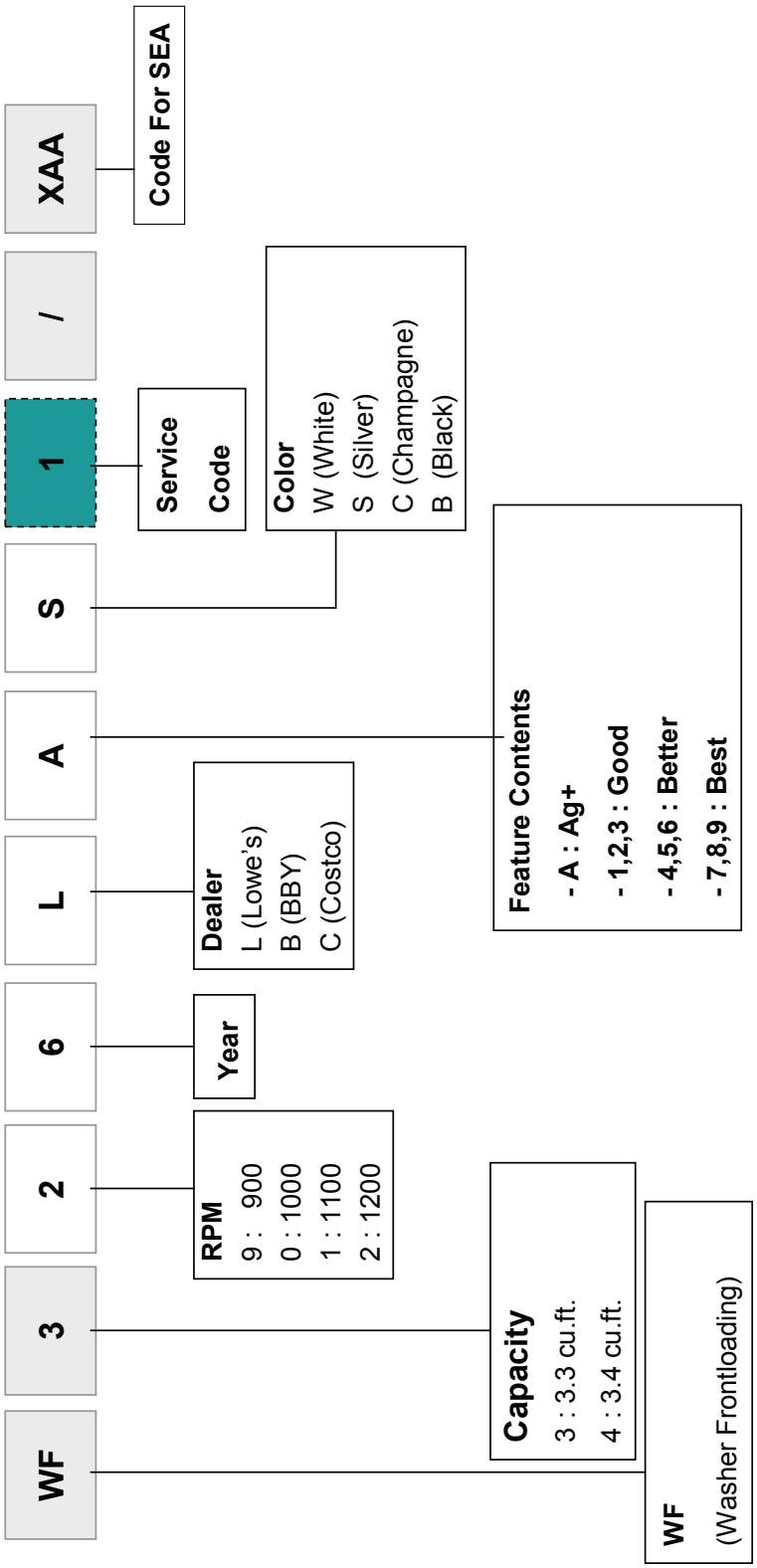
▶ Operation

- Input/Output port of MICOM to control LED, display and switch of SUB PBA

Memo

13. REFERENCE INFORMATION

13-1. MODEL NAME



13-2. TERMINOLOGY

1) ASSY-MAIN PCB (Imbalance Sensor)
→ To prevent the laundry from gathering on one side of the tube causing noise and vibration, the washing machine uses an imbalance detection device that evenly disentangles the laundry before the hydrating cycle starts.

2) DOOR-LOCK S/W
→ Prevents the door from being opened while a cycle is in progress. For safety purposes, it keeps the door locked even in pause mode or after the washing cycle unless the water level frequency is greater than 24.8Khz (anti-overflow level) or the inside-tube temperature is less than 65℃ in the hydrating cycle, and 55℃ in the washing cycle.

3) SENSOR-PRESSURE (Anti Over-Flow)
→ When the water supplied is more than 2/3 of the tube capacity due to a malfunction of the water supply valve, this device automatically starts water-draining and displays “OVER-FLOW ERROR(E3)” on the LED.

4) THERMISTOR
→ Keeps sensoring and controlling the temperature inside the tube to keep it below your settings.

5) ASSY-THERMAL FUSE (Anti Over-Heat)
→ When the washing heater is overheated due to an error in the thermistor or any other malfunction, the assy-thermal fuse (built in the heater) is automatically activated to discon nect the power for your and the product’s safety.

6) ASSY-MAIN PCB (Sensitive Laundry Protection)
→ To avoid any damage to sensitive laundry, the tube temperature is detected and “ERROR(E8)” is displayed on the LED for Wool or Lingerie courses when the temperature is over 50℃.

7) THERMOSTAT (Anti Over-Heat)
→ When the heater (drier) overheats from an error in the thermistor or any other malfunction, the thermostat (installed on the drying duct) is automatically activated to disconnect the power for your or product’s safety

8) CHILD LOCK
→ Prevents children from playing with the washing machine.

9) PRE-WASH
→ The machine does a preliminary wash of about 10 minutes prior to the main wash. This is particularly effective for cleaning badly stained laundry.

13-3. FABRIC CARE CHART

The following symbols provide garment care directions without words.
The care label will include, in order, four symbols: washing, bleaching, drying and ironing, or dry cleaning when necessary.
The use of symbols ensures consistency among garment manufacturers of domestic and imported items. Follow care label directions to maximize garment life and reduce laundering problems.

Wash Cycle		Special Instructions		Warning symbols for laundering	
	Normal		Line Dry/ Hang to Dry		Do Not Wash
	Permanent Press/Wrinkle Resistant/ Wrinkle Control		Drip Dry		Do Not Wring
	Gentle/Delicates		Dry Flat		Do Not Bleach
	Hand Wash	Heat Setting			Do Not Tumble Dry
Water Temperature**			High		No Steam (added to iron)
●●●	Hot		Medium		Do Not Iron
●●	Warm		Low		
●	Cold		Any Heat		
Bleach			No Heat/Air		
	Any Bleach (when needed)	Iron-Dry or Steam Temperatures			Line Dry/ Hang to Dry
	Only Non-Chlorine (color-safe) Bleach (when needed)		High		Drip Dry
Tumble Dry Cycle			Medium		Dry Flat
	Normal		Low		
	Permanent Press/ Wrinkle Resistant/ Wrinkle Control	Dryclean			
	Gentle/ Delicates		Dry clean		
			Do Not Dry clean		

**The dot symbols represent appropriate wash water temperatures for various items. The temperature range for Hot is 105° - 125° F/ 41° - 52°C, for Warm 85° - 105° F/29° - 41° C and for Cold 60° - 85° F/16° - 29° C.
(Wash water temperature must be a minimum of 60° F/16°C for detergent activation and effective cleaning.)

The clothes Washer may not ensure these temperatures because the actual water temperatures entering your Washer are dependent on water heater settings and regional water supply temperatures. For example, cold water entering the home in the northern states during winter may be 40° F/4° C which is too cold for effective cleaning. The water temperature in this situation will need to be adjusted by selecting a warm setting, adding some hot water to the MAX FILL line or using your Washer's heating option, if available.

13-4. ELECTRICAL WARNINGS

To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind:

- Operate the appliance only from the type of power source indicated on the marking label.
  If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.

- Use only a grounded or polarized outlet. For your safety, this appliance is equipped with a polarized alter nating current line plug having one blade wider than the other.
  This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still doesn't fit, contact your electrician to replace your outlet.

- Protect the power cord. Power supply cords should be routed so that they are unlikely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at plugs, convenience re ceptacles, and the point where they exit from the unit.

- Do not overload the wall outlet or extension cords. Overloading can result in fire or electric shock.

14-5. Models

Dealer	Models	Remark
Lowe's	WF326LAS	2(1200rpm), 6('06), L(Lowe's), A(Ag+), S(Silver)
	WF326LAW	2(1200rpm), 6('06), L(Lowe's), A(Ag+), W(white)
	WF316LAW	1(1100rpm), 6('06), L(Lowe's), A(Ag+), W(white)
	WF306LAW	0(1000rpm), 6('06), L(Lowe's), A(Ag+), W(white)
	WF206LNW	0(1000rpm), 6('06), L(Lowe's) N(No Ag+), W(White)
BBY	WF316BAC	1(1100rpm), 6('06), B(BBY), A(Ag+), C(Champagne)
	WF316BAW	1(1100rpm), 6('06), B(BBY), A(Ag+), W(white)
	WF306BAW	0(1000rpm), 6('06), B(BBY), A(Ag+), W(white)
	WF306BHW	0(1000rpm), 6('06), B(BBY), H(Ag+,Heater), W(white)
Costco	WF316CAW	1(1100rpm), 6('06), C(costco), A(Ag+), W(white)
	WF306C1W	0(1000rpm), 6('06), C(costco), 1(grade), W(white)

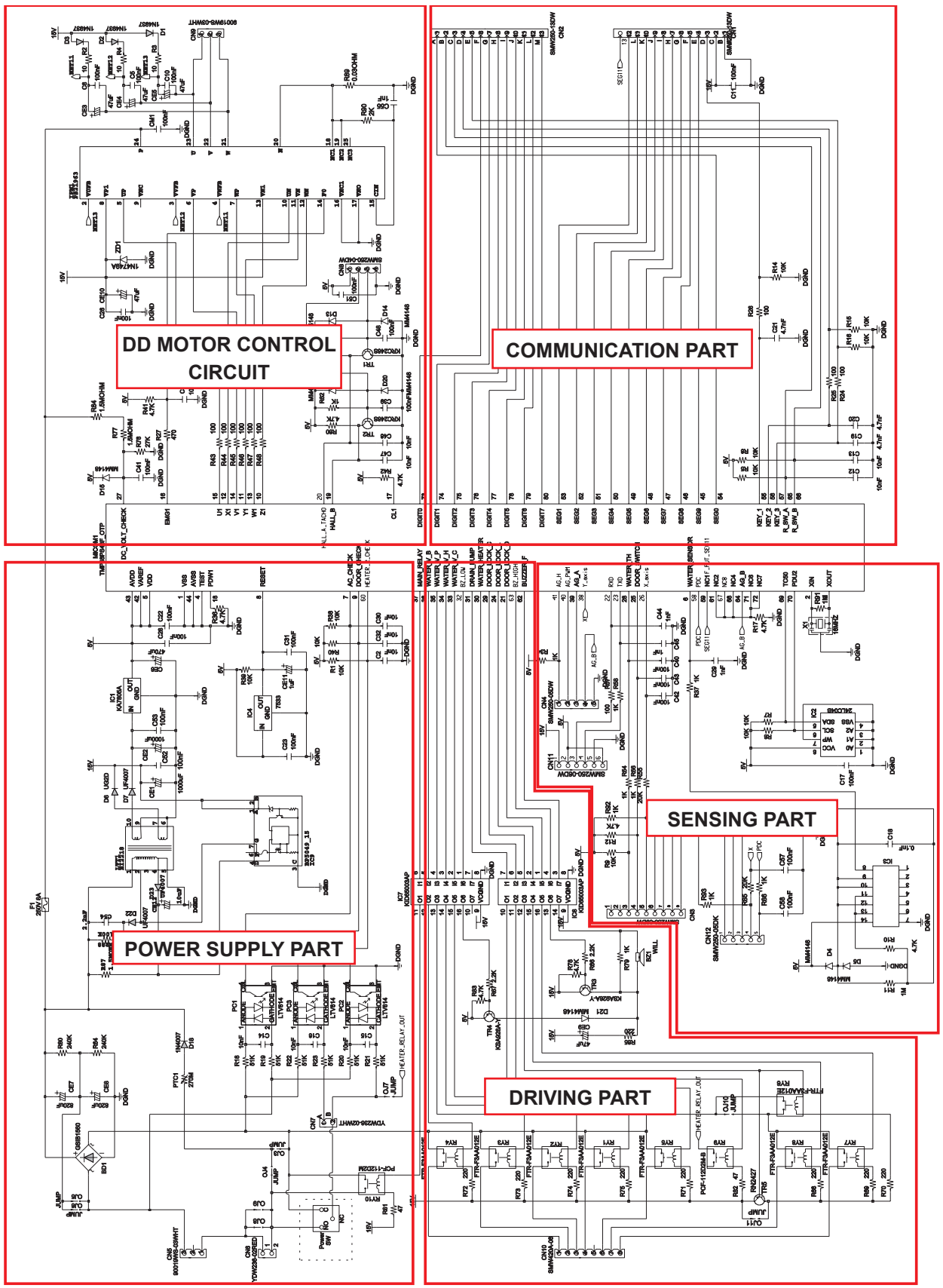
13-5. Q & A

NO.	Question	Answer
1	How long does it take for the door to unlock?	It takes approximately 2-3 seconds for the door to unlock.
2	The cycle is complete and “End” is displayed. How do I set another cycle?	When “End” is displayed, the Power button should be pressed or door should be opened before selecting another cycle. The display will show “End” until washer is turned off. To turn off washer, the Power button should be pressed or the door should be opened
3	What should I do when Information Code (“dc”) lights up?	When the Information Code is displayed, press the Start/Pause dial and then restart the cycle. For more information, refer to the Owner’s Manual
4	There is a small amount of water left in Detergent Drawer after the load is complete. Is this normal?	It is normal for a small amount of water remaining in Detergent Drawer after it completes washing. Bleach is usually flushed out into the tub at the beginning of the washing. Also, its compartment is washed again during the following rinse cycle, removing any remnants.
5	When I went back to my washer, it was turned off. What happened?	Power button may have been accidentally bumped or pushed. Reset the cycle and start the washer. Make sure the unit is plugged into a live electrical outlet. Check house fuse or circuit breaker.
6	The washer door gets locked after a power failure. How can I open it?	If the power fails while the door is locked, the door will remain locked until the power comes back on. If the power comes back on while the door is still locked, the cycle will resume where it left off. If the door is unlocked, “PF” will display and the washer will pause. Press Power Off and restart the cycle.
7	The washer door does not unlock when there is water in the tub. How can I open it?	The water must be drained from the tub for the door to be opened. Set the rotary dial to Spin Only and press the Start/Pause dial. The door will open 2-3 seconds after the Spin or Drain cycle is completed.

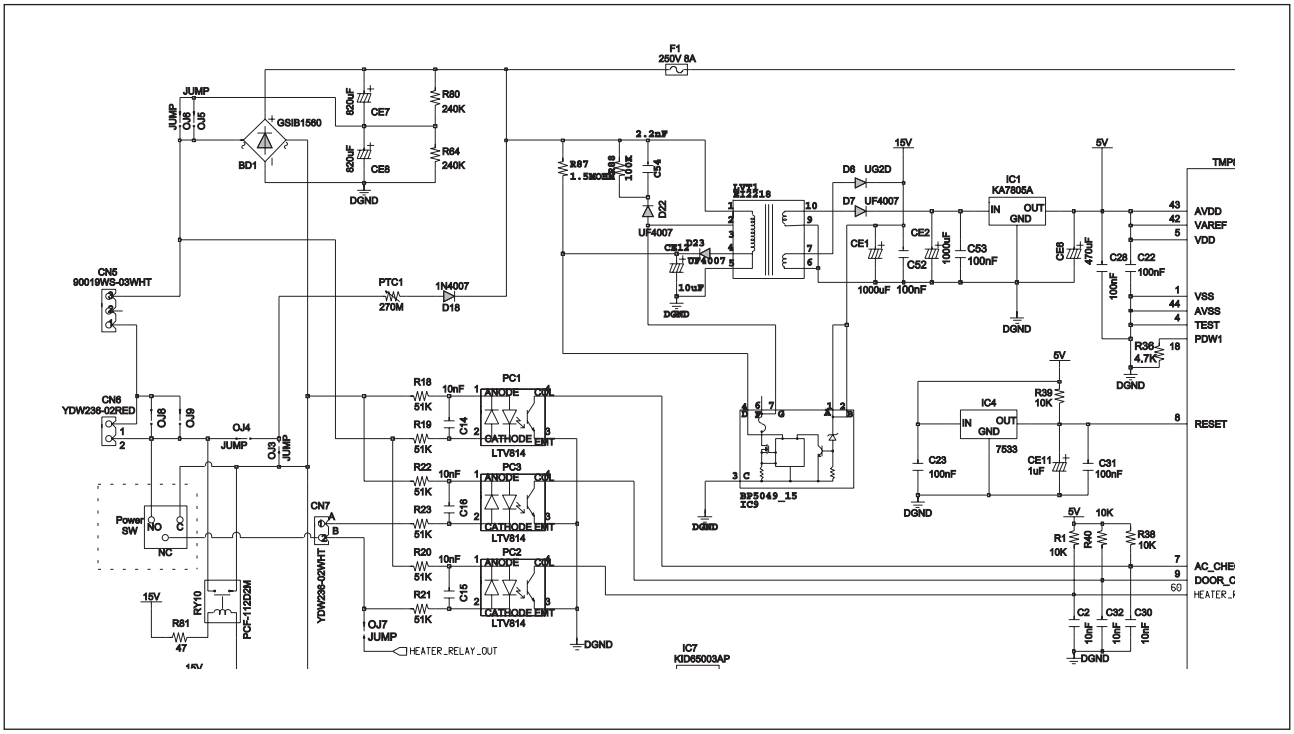
Memo

12. CIRCUIT DESCRIPTIONS

12-1. OVERALL SYSTEM



12-2. POWER SUPPLY PART



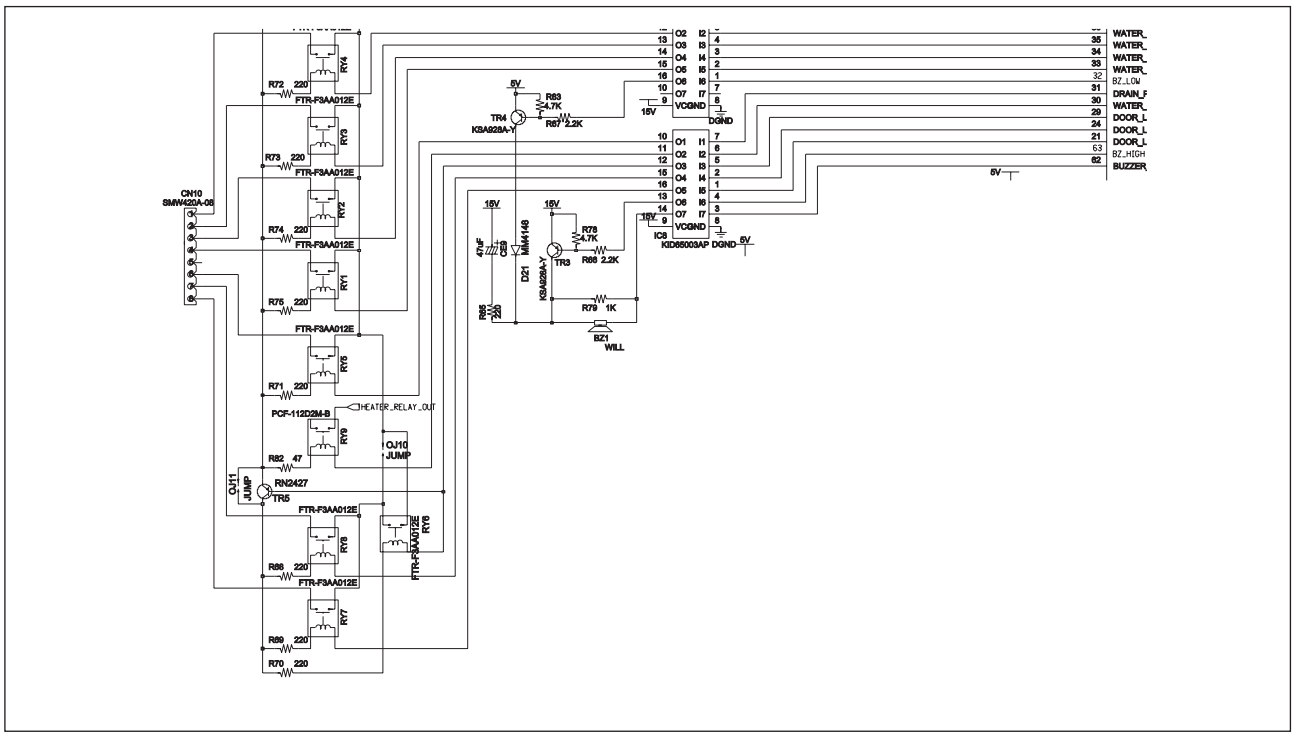
▶ Role

- Generates consistent voltage necessary to control the circuit such as 15V and 5V from the high AC voltage.
- This circuit uses switching transformer.

▶ Operation

- Generates DV voltage from AC input through diode (bridge).
- Generates 15V and 8V voltage from switching transformer.
- Static voltage of 5V output from IC1 output terminal.

12-3. DRIVING PART



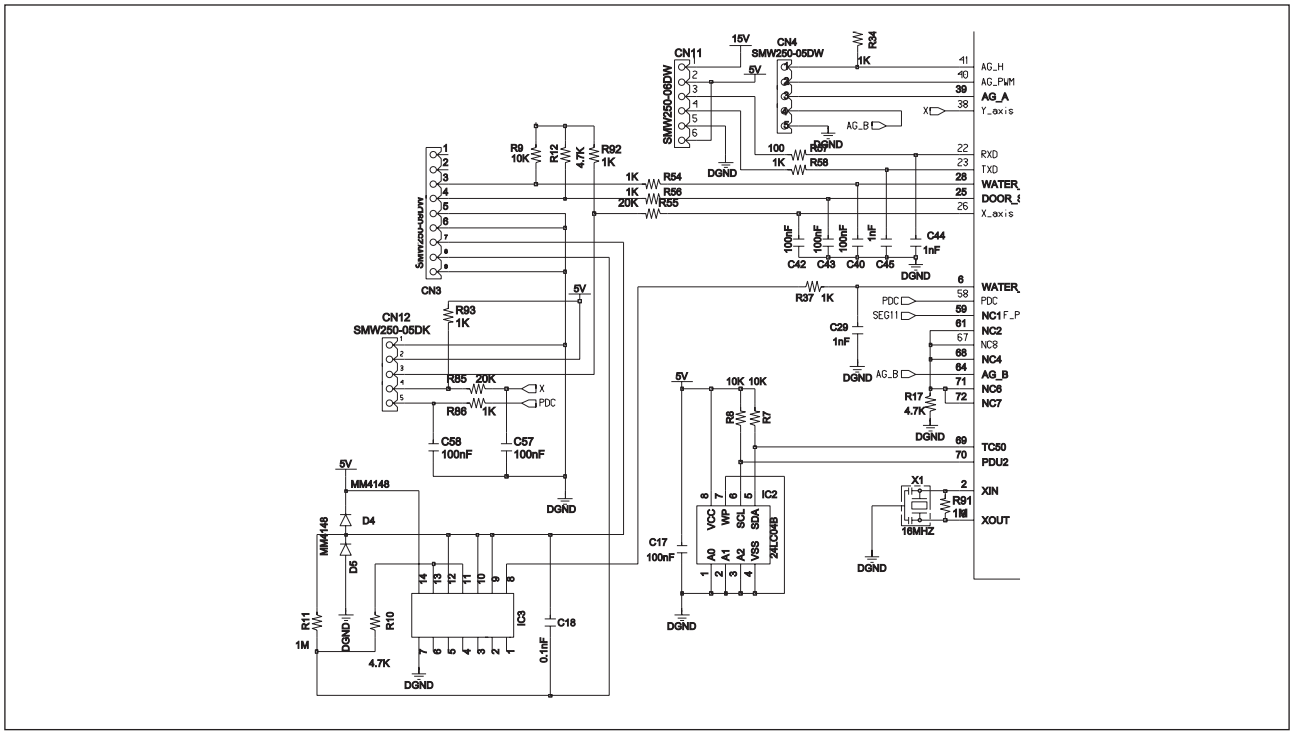
▶ Role

- Controls the electricity connection of electronic parts of the set.

▶ Operation

- Sends HIGH signal through electronics port to operate MICOM.
- When HIGH signal is received in IC7 and IC8 input, the output becomes LOW.
- At this time, the relay operates to supply power to the electronic parts.

12-4. SENSING PART



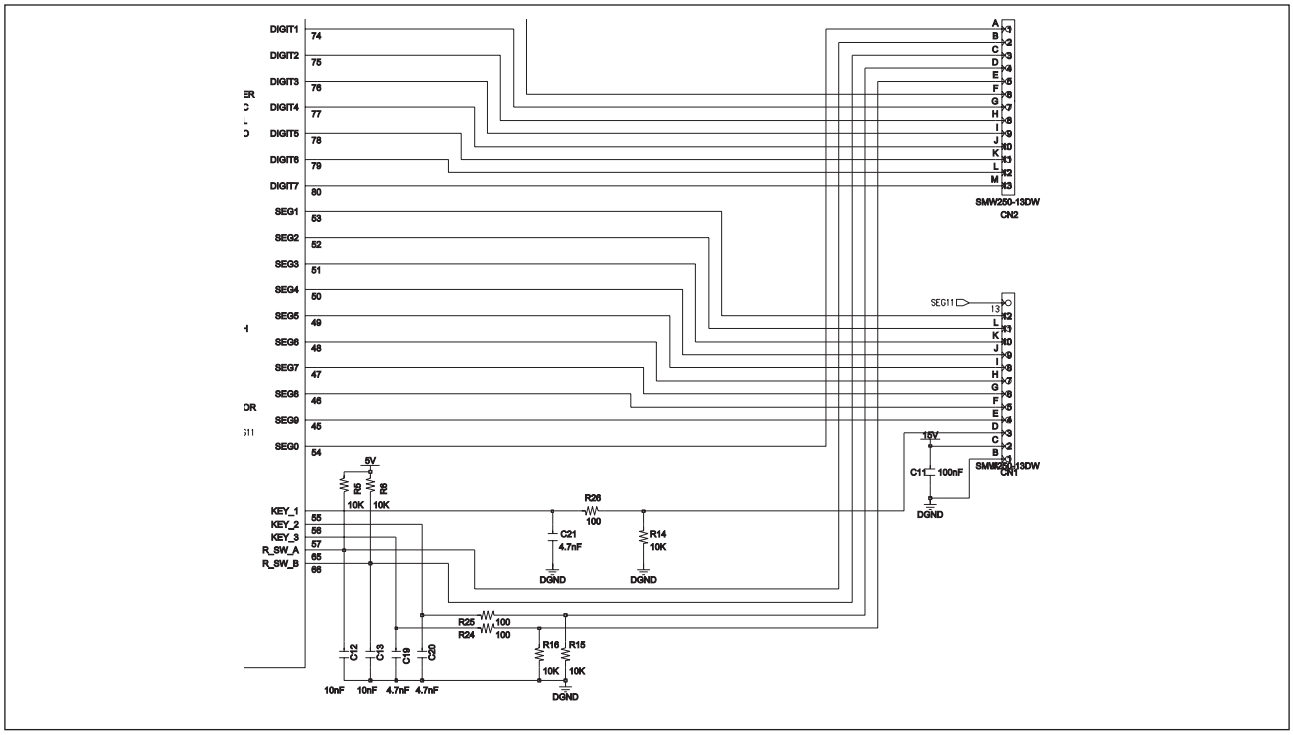
▶ Role

- Detects temperature of each part though THERMISTOR output.
- Measures the frequency of water level sensor and detects the quantity.
- Judges whether the door is closed or not.

▶ Operation

- Detects the output of IC3 (MICOM PIN 6) to judge current quantity.
- Controls water supply temperature though THERMISTOR.
- Detects the contact point of Door Switch to judge whether the door is closed or not.

12-5. COMMUNICATION PART



▶ Role

- Communication circuit for display control of SUB PCB
- Encode of SUB PCB and circuit for switch control

▶ Operation

- Input/Output port of MICOM to control LED, display and switch of SUB PBA

Memo

GSPN (Global Service Partner Network)

Area	Web Site
North America	http://service.samsungportal.com
Latin America	http://latin.samsungportal.com
CIS	http://cis.samsungportal.com
Europe	http://europe.samsungportal.com
China	http://china.samsungportal.com
Asia	http://asia.samsungportal.com
Mideast & Africa	http://mea.samsungportal.com

This Service Manual is a property of Samsung Electronics Co.,Ltd.
Any unauthorized use of Manual can be punished under applicable International and/or domestic law.

© 2007 Samsung Electronics Co.,Ltd.
All rights reserved.
Printed in Korea
Code No.: DC68-02631A-00